Anamorphoses

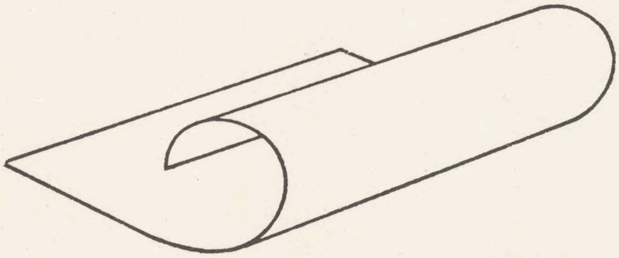
Games of Perception and Illusion in Art

Important

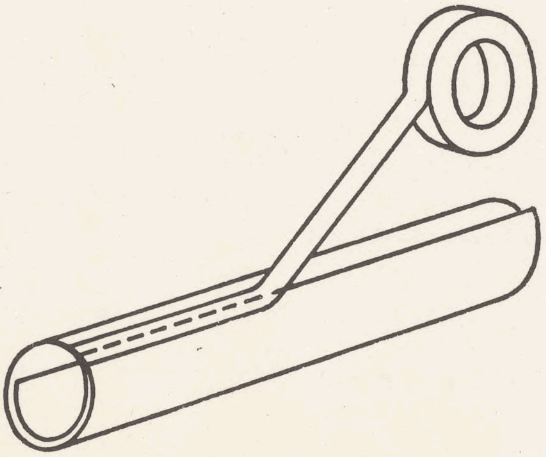
How to Use the Reflector

With the enclosed sheet of reflecting plastic you can correct the distorted pictures in the Game Section of this book—pages 137–176—and watch small marvels of painting emerge from the confusion of shapes and colors.

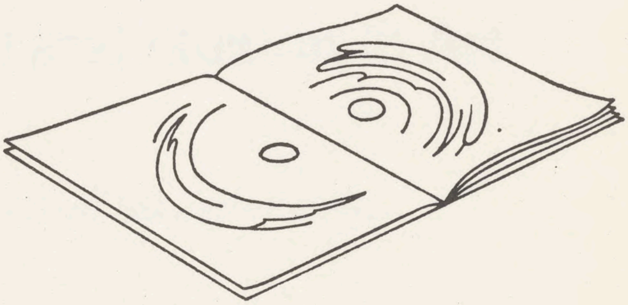
1 Roll the silver sheet into a cylinder about an inch in diameter.



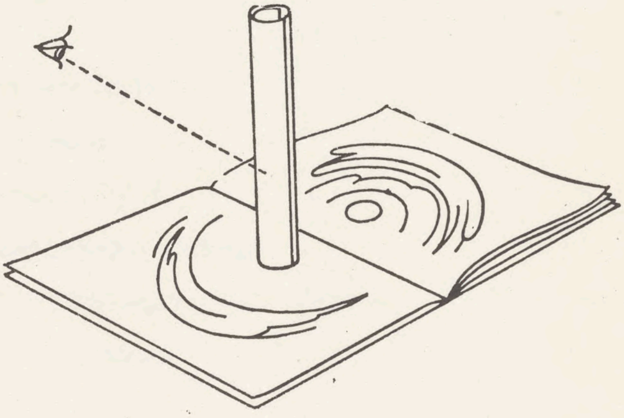
2 Holding the cylinder together firmly, look at one of the pictures. It will be easier to manipulate the cylinder if you tape the edges together. We suggest that you unroll the cylinder after use in order to keep it from cracking or creasing.



3 In each picture in the Game Section there is a circle or a square that indicates where the reflecting cylinder should be placed.



4 If you have placed the cylinder correctly on the page, the concealed picture will become clearly visible.



The "game" is in finding the correct angle from which each picture should be observed. Your eye should always be somewhat higher than the cylinder, as it will be if you sit at a table and place the open book in front of you.

Experiment with the cylinder! See how the reflected pictures change when you alter its circumference. Several anamorphoses are more clearly seen when the diameter of the cylinder is about two to two-and-a-half inches.

Anamorphoses

Games of Perception and Illusion in Art

Organizing Artists: Michael Schuyt and Joost Elffers

The Museum of Fine Arts, Boston

The Brooklyn Museum

The Cleveland Museum of Art

The Museum of Science and Industry, Chicago

The Corcoran Gallery of Art, Washington, D.C. October 15 - November 20, 1977

The High Museum of Art, Atlanta

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This exhibition, *Anamorphoses: Games of Perception and Illusion in Art*, was enjoyed and marveled at by more than a quarter of a million people during its relatively brief stay in Europe.

SCM Corporation is delighted to be able to play a part in bringing this remarkable exhibition of a little-known but centuries-old art form to hundreds of thousands of people in the United States. During the next two years, *Anamorphoses* will travel to several of America's outstanding museums.

This exhibition would not have been possible without the efforts of Michael Schuyt and Joost Elffers. They conceived the idea and painstakingly searched out and assembled the most important examples of this unique art. We are indebted to them.

Paul H. Elicker
President, SCM Corporation

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Foreword

The exhibition, *Anamorphoses: Games of Perception and Illusion in Art*, which begins its tour of the United States in Boston, is not a museum event of the usual type, for it focuses on an art form with which most of us are as unfamiliar as we are with its exotic-sounding name. For many centuries artists have been playing games with perspective and creating surprising illusions. Great artists such as Leonardo da Vinci and Hans Holbein used a curious and fascinating effect that is called "anamorphic." It presents us with a totally distorted representation of reality, which can only be restored to its true form when the image is viewed from an oblique angle or reflected in a cylinder, cone, or prism. Such reflecting devices were sometimes called "perspectives," and it is to such artificial aids that Shakespeare refers in *All's Well That Ends Well*: "Contempt his scornful perspective did lend me, which warps the line of every favour."

Over the centuries a small group of artists, of major as well as of secondary importance, inspired by a fascination with visual experimentation, created a variety of playful experiments with perspective. Many of their distorted, "anamorphic" creations have been collected by Joost Elffers and Michael Schuyt, who assembled this traveling exhibit from many countries. When this collection was first shown in Amsterdam and Paris it attracted the attention not only of a large segment of the regular museum-going public but also of those who do not often come to see art but who apparently were attracted by the challenge of personal involvement that this exhibition demands of its viewers.

On behalf of all the museums participating in this exhibition I wish to thank the lenders of objects for their generous help and to express the hope that this uncommon visual happening may bring many new viewers within our walls.

JAN FONTEIN
Acting Director
Museum of Fine Arts, Boston

Introduction

The system of central perspective not only rationalizes the relationship between objects within a picture, but also establishes a relationship between the viewer and the represented images. Anamorphoses are an extreme example of this subjectivization of the viewing process. The observer is first deceived by a barely recognizable image, and is then directed to a viewpoint dictated by the formal construction of the painting. Indeed, the etymological origin of the word—from the Greek *ana* (again), *morphē* (shape)—indicates that the spectator must play a part and re-form the picture himself. In this respect the anamorphosis is not a unique phenomenon, of course. Similar characteristics can be found in illusionistic wall and ceiling painting, and in the use of accelerated and retarded perspective in architecture, urban design, and theatrical scenery. A typically Dutch application of this principle is the perspective cabinet or "perspektyfkas."

Since perspective anamorphosis is also an offshoot of the central perspective system in structure, we will briefly examine the history of its discovery and the method by which it is constructed. We will also examine other closely related variants and special applications, such as illusionistic and *quadratura* painting. The relationship between perspective anamorphoses and various kinds of accelerated perspective extends beyond their comparative constructions. All these techniques are intended to invoke a realistic visual effect disassociated from the actual concrete, material nature of the object.

The seventeenth and eighteenth centuries were the golden age of anamorphosis. Illustrative examples from books, paintings, and prints—including much hitherto unpublished material—give an idea of how many imaginative variations on a long-familiar theme were conceived in this period. In the nineteenth century, anamorphoses were relegated to children's rooms and—as exercises—to the art schools. The search for the basis of anamorphic effect in the psychology of perception is characteristic of the attitudes of the twentieth century and—once clarified and defined—the phenomenon seems to have been consigned to the archives.

The places where anamorphoses can be found today give an indication of their obscure and equivocal position. Museums of natural history regard them as mere diversions in the field of optics. In the art museums they tend to be overlooked because of their frequently undistinguished artistic quality.

Yet anamorphic art has crept back in. Several pieces in this exhibition carry anamorphosis to a status it never achieved earlier: as full-scale fine art. In light of this, perhaps we should rethink our interpretations of what fine art encompassed in the sixteenth and seventeenth centuries.

A number of the works illustrated in the present volume have never been published before. The majority were photographed especially for this catalogue. The text explores the ways in which perspective can be used to deceive the human eye, and at the end there is a Game Section in which—with the enclosed sheet of reflecting plastic—you can explore the world of cylinder anamorphoses for yourself.

I Perspective anamorphosis

Anamorphosis has always been a peripheral phenomenon, which implies that one can seldom speak of great anamorphic art when considering only its aesthetic qualities. However, if we enlarge the concept "aesthetics" to include our visual perception of the external world, it is clear that anamorphic representations belong in that category, for they demand a very particular and conscious way of viewing.

In all probability perspective anamorphosis grew out of a serious concern about the validity of the system that until then had been considered the best means of re-creating a visual experience–linear perspective.

In the 1420s, avant-garde artists in Florence searched for a new approach to painting in optics, the science that deals with the phenomena of light and vision. It was hoped that the art of painting might thus attain a scientific status.

Provided certain rules were followed, a painting was able to simulate observable reality. As formulated by Euclid in the third century B.C., the field of vision should be considered as a pyramid whose apex lies in the eye of the observer. In 1435, the architect and art historian Leonbattista Alberti used this formulation as the basis for his famous definition of a painting as a cross section of the visual pyramid. The surface of a painting was to be considered as a window through which one viewed a certain scene.

In order to paint this two-dimensional representation in such a way that a three-dimensional impression was indeed achieved, one had to draw both a horizon line and a vanishing point in which receding parallel lines, if continued, appeared to meet. All objects that one should be able to observe in this plane were to be projected in such a way that their apparent distance from the observer could be deduced from their mutual differences of scale. A human figure half the size of an adjoining one represented a person standing at twice the distance from an observer (Plate 5).

In order to experience these illusions as fully as possible, the observer of such a painting had to stand at the spot where the apex of the viewing pyramid was supposed to be. He had to look in the direction of the vanishing point from a distance that was determined by the composition of the painting. Strictly speaking, the painting was to be viewed with one eye only.

However, in practice one did not have to be so very particular, especially when the correct viewpoint lay at some considerable distance from the painting. Leonardo da Vinci recommended a viewing distance equal to three times the height of the objects rendered. In that case there was no objection to the painting's being viewed by several persons at the same time.

Leonardo discovered that at a short viewing distance curious distortions take place because the difference between the distance to the eye from the center and from the edges begins to play a part (Fig. 1). If A is the eye of the observer, and the identical circles a, b, and c are projected on a plane surface, the rule that the most remote object produces the smallest projection no longer holds true. The outer circles produce a larger projection than the central one. This phenomenon can also be observed when one photographs a row of pillars: they become thicker toward the edges.

When viewing such a distorted projection through a small aperture situated at A, everything appears

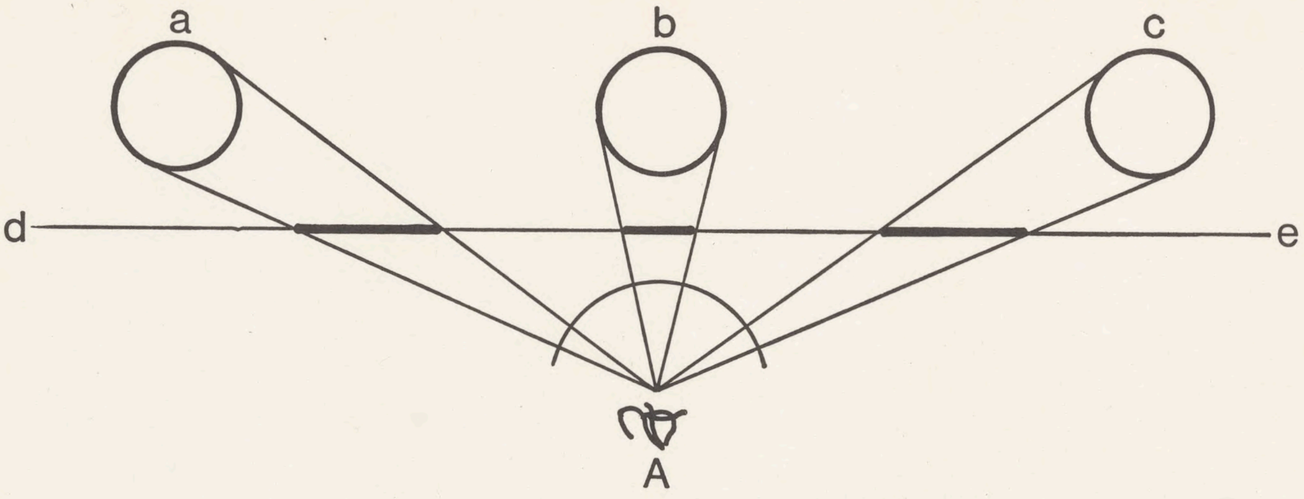
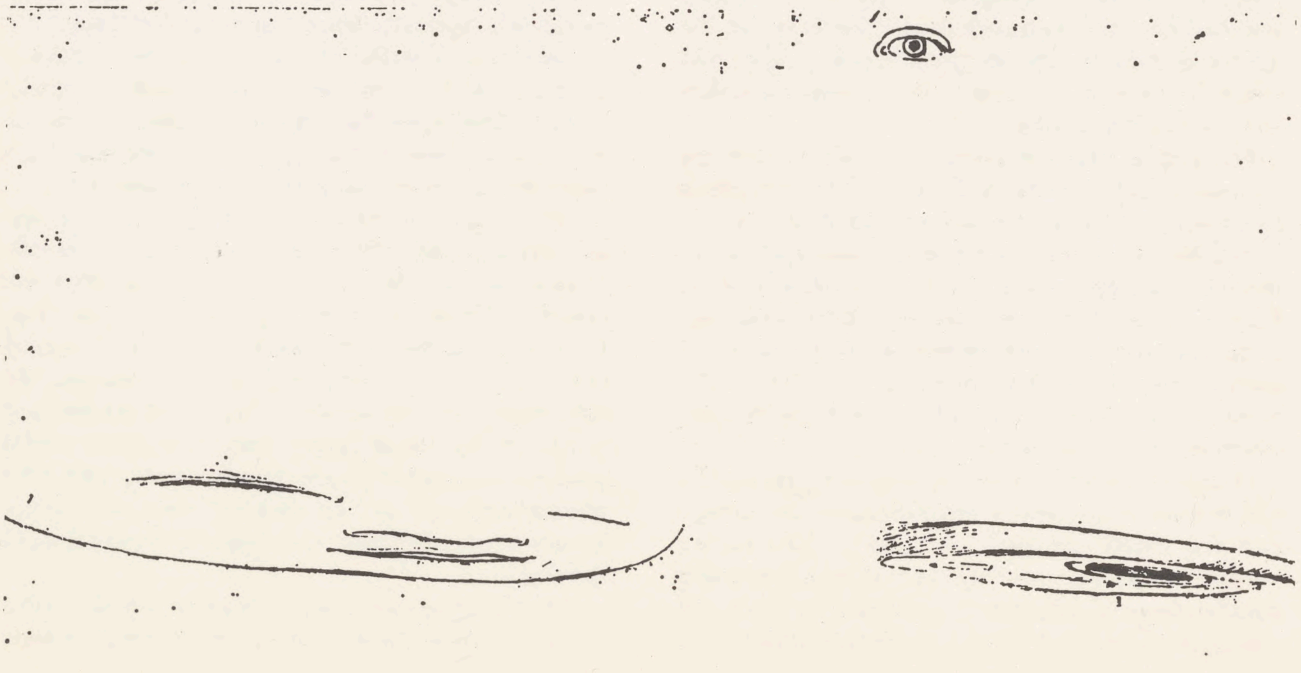


Fig. 1 After Leonardo da Vinci. Ms. A, fol. 38 recto. 1492. Institut de France, Paris

In this sketch Leonardo tries to show that objects (in this case circles) that are farther from the observation point appear larger than those that are nearer.

Fig. 2 Leonardo da Vinci. Anamorphic sketches of a child's head and an eye, Codex Atlanticus, fol. 35 verso *a*. c.1485. Biblioteca Ambrosiana, Milan

These hesitant distorted drawings are the first anamorphoses we know of. When they are viewed from a sharp angle at the righthand side of the page, the pictures regain their normal proportions and also seem to rise and float free above the paper.



normal. It also proved possible to eliminate this distortion by curving the picture plane.

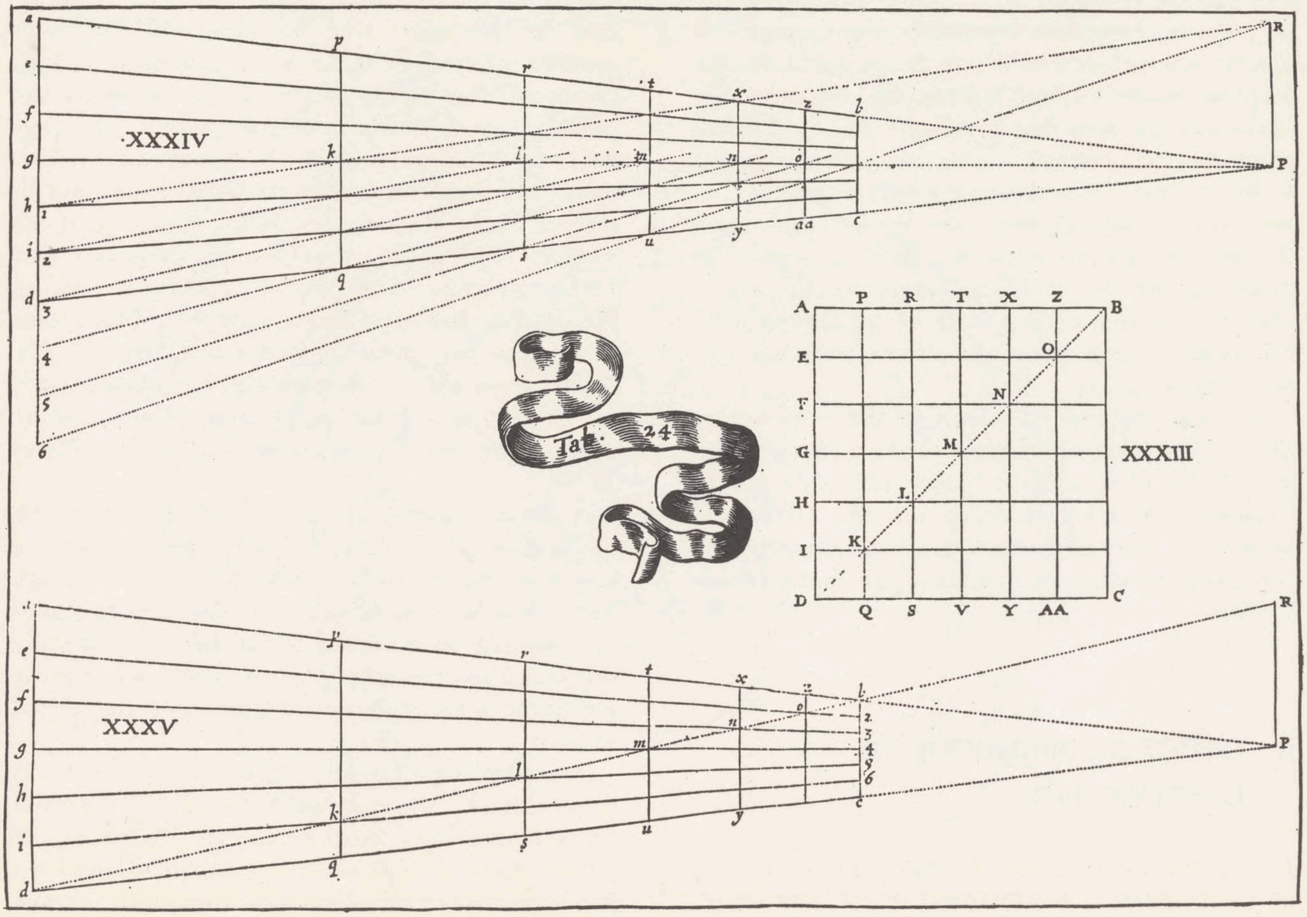
Leonardo figured out how to take advantage of these edge-of-image phenomena. On a page of his "Codex Atlanticus" he drew an oddly elongated child's face and an equally distorted human eye (Fig. 2). If one looks at these sketches from a certain point on the righthand side, just above the surface of the paper, both drawings assume their normal proportions. Moreover, the lines lose contact with the actual surface of the paper and appear to float in the air. Both eye and face seem to the viewer to be on a visual plane that is more or less parallel to the actual plane of the drawing. The cross section of our viewing pyramid has indeed now become imaginary, because it no longer coincides with the plane of the sheet of paper on which the sketch is drawn.

Leonardo achieved this effect by using a special distorting technique. The fact that he drew lines on the original with a pointed metal implement warrants an assumption that he applied a technique that was not described at length until the 17th century.

Italian treatises on painting published in the 16th century indicate that in that country purely empirical methods were exclusively employed for a time. In his *Pratica della Prospettiva* (1569) Daniele Barbaro recommended making perforations along the lines of a drawing in correct perspective. When it was placed upright, a light source behind the sheet would cast spots of light on a plane surface. These light spots then had to be marked. When viewed from the place where the light source had been positioned, this distorted projection could be seen in correct perspective.

Anamorphic murals also seem to have been painted at that time, for examples were included in Giovanni Paolo Lomazzo's *Trattato dell' arte della Pittura* (1584). The method recommended by him is based on principles of a more geometrical nature. The original

Fig. 3 Jean-François Niceron. *Thaumaturgus Opticus*... (Rome, 1646), illus. 24
The rectangle XXXIII can, by geometric means, be transformed into an anamorphic rectangle. If one looks at XXXIV and XXXV from viewpoint RP, the original rectangle appears, seemingly released from the paper.



had to be covered with a grid of lines and affixed at an angle of 90 degrees to the wall on which the painting was going to be made. It was then possible to project the grid by means of a thread from the selected viewing point onto the wall. With this point as center, the painting was then completed on the projected grid by using a long stick to which a piece of charcoal was attached. Unfortunately, all murals executed by this technique have been lost.

Interest in anamorphosis was revived in the 17th century by a group of French mathematicians belonging to the Order of Minims. Their most important theorist was Jean-François Niceron, who in his *Perspective curieuse* of 1638 and in the posthumous publication *Thaumaturgus Opticus* (1646) offered a method similar to Lomazzo's and also—for small-sized paintings—to the one most probably known to Leonardo.

The method of constructing small anamorphic pictures was also based on the rules of normal perspective (Fig. 3). In order to divide a plane into squares seen in normal perspective, one first had to determine the required viewing distance. This measurement was then marked off on the horizon line, with the vanishing point as a base. The required foreshortening of the squares was then determined by the points at which a diagonal line drawn from this so-called distance point intersected the lines that converged in the vanishing point. Niceron's method is in fact an extreme example of this method, for in this case the distance point lies close to the vanishing point, and the distorted representation is completed on the resulting grid. The distortion that an ordinary square would assume when viewed from a sharp angle is fully eliminated by the gradual displacement of the lines in the anamorphic representation.

The only remaining evidence of the monumental anamorphic paintings Niceron made is an engraving found in his *Thaumaturgus Opticus.* His fellow Minim Emmanuel Maignan adorned the SS. Trinità dei Monti monastery in Rome with a huge painting—the only extant example of an anamorphic mural (Plates 22–26).

II Other applications of perspective

Some of the characteristics of ordinary perspective are in fact compelling requirements in the case of anamorphosis. Strictly speaking, a representation in normal perspective can also be viewed absolutely correctly only from a single point—the center of the perspective.

In the 15th century, some Italian painters put great faith in the possibility of achieving an extremely faithful rendering by this method. For example, Piero della Francesca first drew a plan of the space he wanted to represent. Applying the rules of perspective, he was able to translate this three-dimensional space into a two-dimensional projection. For instance, his painting *The Flagellation of Christ* (c. 1460), a panel measuring roughly 23 x 32 inches (58.4 x 81.5 centimeters) shows a space that would be 46 feet deep (Plate 5).

By coordinating the size of the objects in the picture with the space in which the observer found himself and by placing the vanishing point at the height of the viewer's eyes, it proved possible to create the illusion that the space in the painting was identical with the one in which the observer was standing (Plates 7–12). The fresco of *The Trinity* by Masaccio (1427–28) gives the unsuspecting observer the impression that the very architecture in which he stands has been extended into the picture. Fixing the observer's viewpoint enabled painters to make walls and even ceilings disappear. The shape of the surface to which the painting was applied became unimportant. The original composition was projected by means of a grid onto vaults and domes, making the required impression on the eye of the observer despite the curvature of the surface. This meant, of course, that extremely odd anamorphic distortions became apparent as soon as the observer looked at the painting from a viewpoint other than the predetermined one (Plates 13–17). Architecture, too, was manipulated by this technique, for an illusion of great depth could be achieved by distorting the actual components of a building (Plates 18–21).

A Dutch variant of this art of illusion is the perspective cabinet (Plates 37–44). The observer can look into the interior of these boxes only through peepholes; his sense of scale is thus reduced to that of the painting on the walls of the cabinet. Carefully calculated distortions keep his eyes from encountering any frame or becoming aware of any concrete painted surface.

Anamorphosis aims not only at illusion but also at concealment. Unrecognizability is an essential characteristic. An extreme example of the use of anamorphosis to disguise the subject can be found in a painting of about 1550 by an unknown south German artist (Plate 2). The anamorphic shapes are incorporated in a vision reminiscent of Hieronymus Bosch.

These two effects of anamorphic pictures—namely, rendering a subject unrecognizable and subsequently making it appear with its illusion enhanced—have consequences, of course, for the content.

III Reflecting cones and cylinders

The kinds of anamorphoses that require a reflecting cone or cylinder for correct viewing have an entirely different origin from perspective anamorphic representations (Plates 30–36, 67–91).

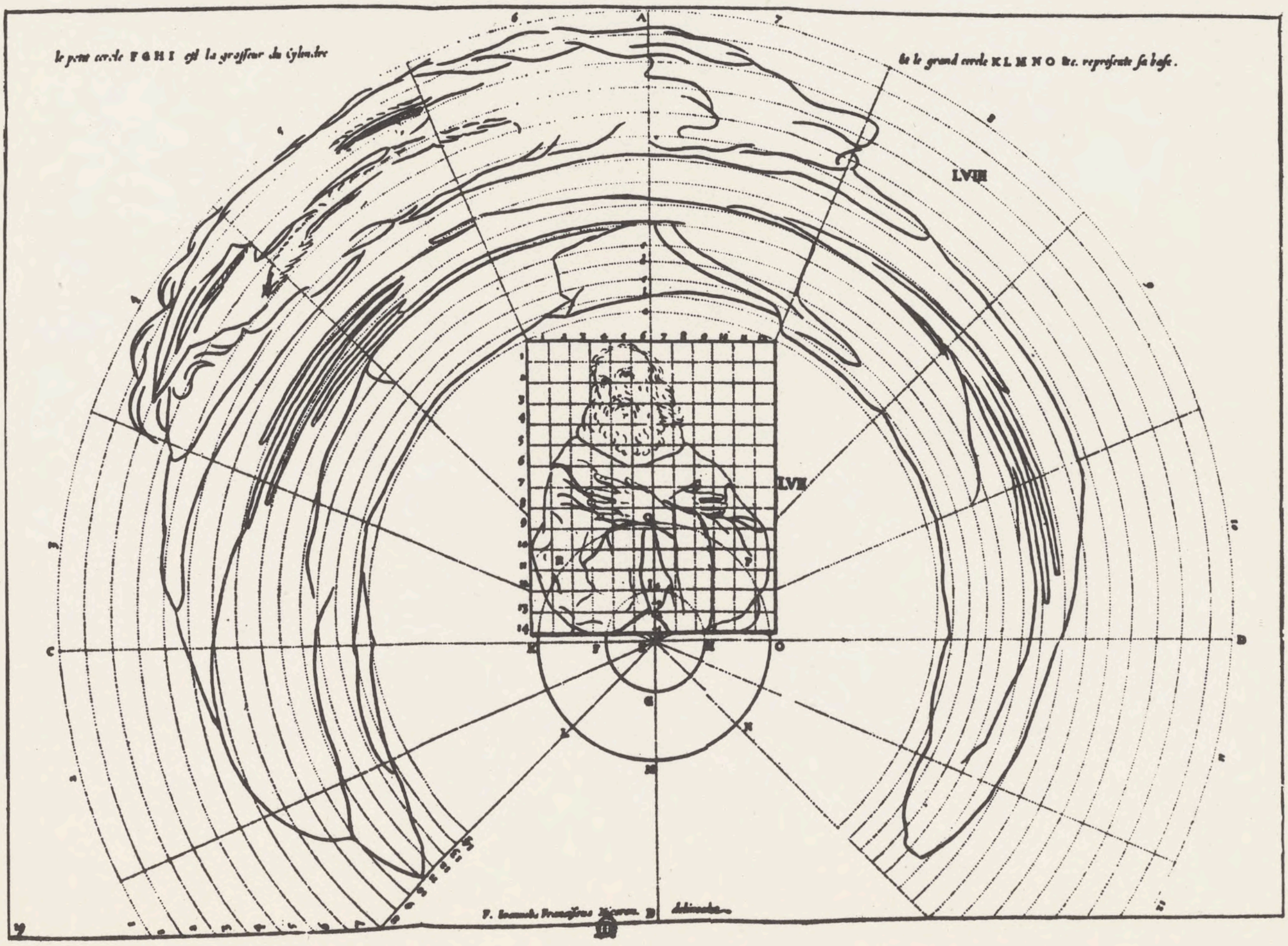
These types of anamorphosis were also popularized by Niceron, though again he was not their originator. Jurgis Baltrušaitis has suggested they that were introduced into Europe during the 1620s by the French painter Simon Vouet. An engraving was made after a design by Vouet (1624–27) that represents the earliest-known cylinder anamorphosis—in the West, at least. Vouet may have been inspired by Chinese examples, which he may have seen at the Turkish court in Constantinople. A few Chinese anamorphic pictures of about that time are extant (Plate 71).

It was in France that illustrated descriptions of the methods of producing such anamorphic representations were published for the first time (Figs. 4 and 5). Niceron also made practical use of the discovery; several examples of his work survive.

It was not long before this type of anamorphic

Fig. 4 Jean-François Niceron. *La Perspective curieuse* (Paris, 1638), illus. LVIII, LVII

Niceron used a painting by Vouet as the model for this illustration demonstrating how to make a cylinder anamorphosis. Saint Francis of Paola, founder of his Order and patron saint of the French royal house, serves as subject.


le petit cercle F G H I est la grosseur du cylindre
& le grand cercle K L M N O &c. represente sa base.
A
LVIII
LVII
C
D

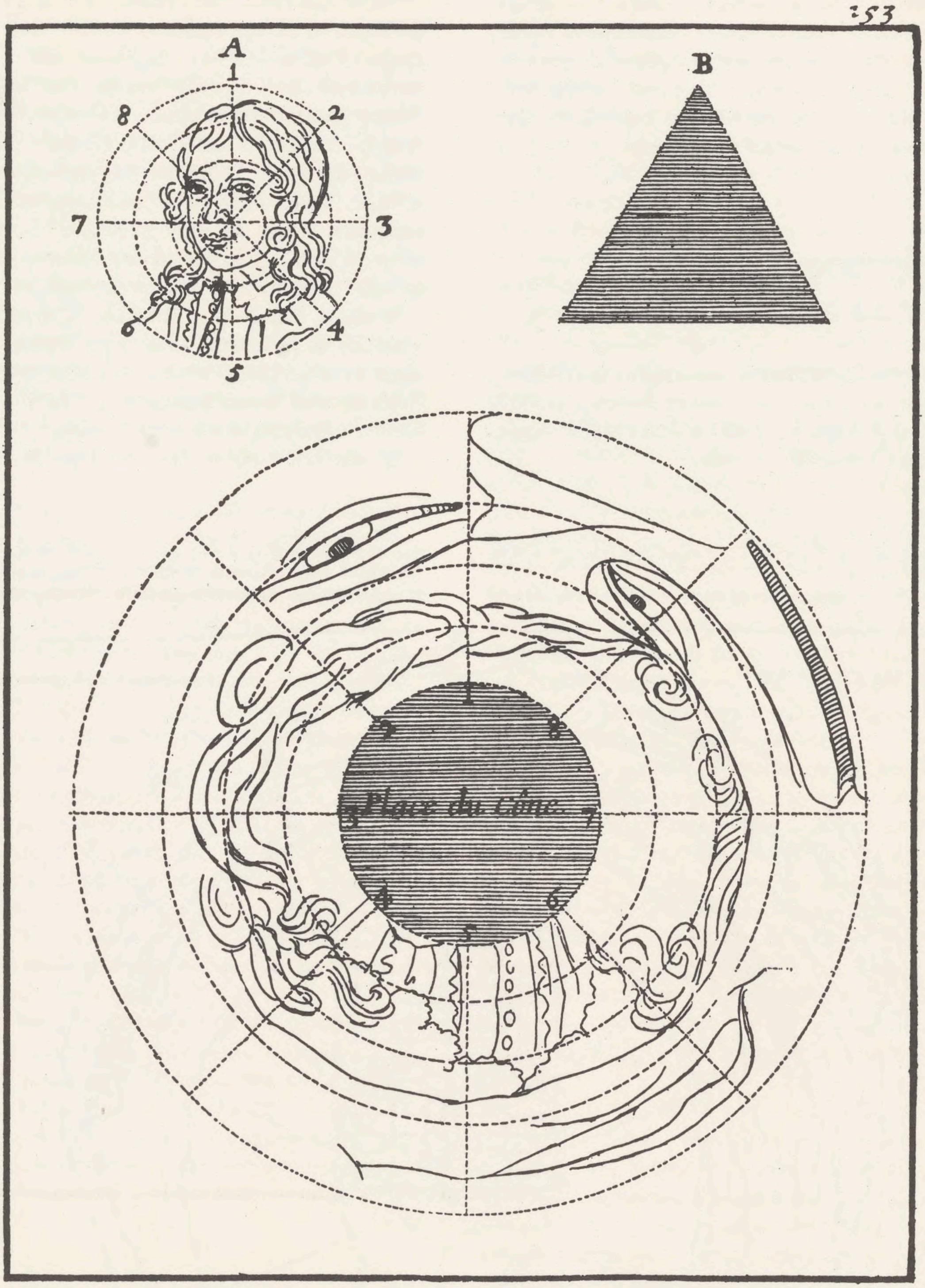


Fig. 5 Jean DuBreuil. *La Perspective pratique*... (Paris, 1649), pt. 3, p. 153

Cone anamorphoses are also prepared by geometric means. By inverting and expanding the original lines, one can "anamorphotize" the original image.

representation eclipsed the perspective anamorphosis. The dimensions were more manageable; viewing was easier, and the element of surprise was much greater. Particularly in the case of cone anamorphoses, the subject could be completely disguised. A variant of these types was the anamorphosis for the reflecting pyramid (Fig. 6, Plate 29).

Unfortunately, not a single early specimen of cone and pyramid anamorphoses is in existence. Their popularity in the 18th century may be gauged from the considerable number of engravings and paintings on display in museum collections.

IV The effects of various forms of anamorphosis

Because of the unusual characteristics of anamorphosis, the technique usually bears a special relationship to the chosen subject matter. At first sight, the subject is unrecognizable. One of the purposes of anamorphosis is often concealment, for which there may be very sound reasons.

Within the framework of a normal perspective representation, an anamorphic image is striking. When viewed from the correct angle, the distorted subject imparts additional significance to a painting. In the most famous of all such paintings, *The Ambassadors* by Hans Holbein (1553), a strange-looking object in the foreground of this double portrait, a skull, gives a vivid sense of the transience of life to the entire painting (Plate 4). The double meaning of the picture is achieved by the *trompe l'oeil* quality of the "natural" perspective and the anamorphosis.

In the case of religious subjects, the miraculous revelation of something hidden is the main consideration. For example, in an engraving by Johann Heinrich Glaser (1638) a Christ's head is hidden between representations of the Fall and the Expulsion (Fig. 7). Upon closer examination, thus, the Original Sin and the Redemption of Man are seen to form part of a theological whole.

Disguised Biblical scenes may appear almost miraculously in the reflection in a cylinder or be shown from a surprising angle (Plates 2, 23–26, 69, 89, 90). For Niceron and Maignan, painting the founder of their Order must have been like creating a synthetic miracle. The rules they observed were provided by God's own natural laws.

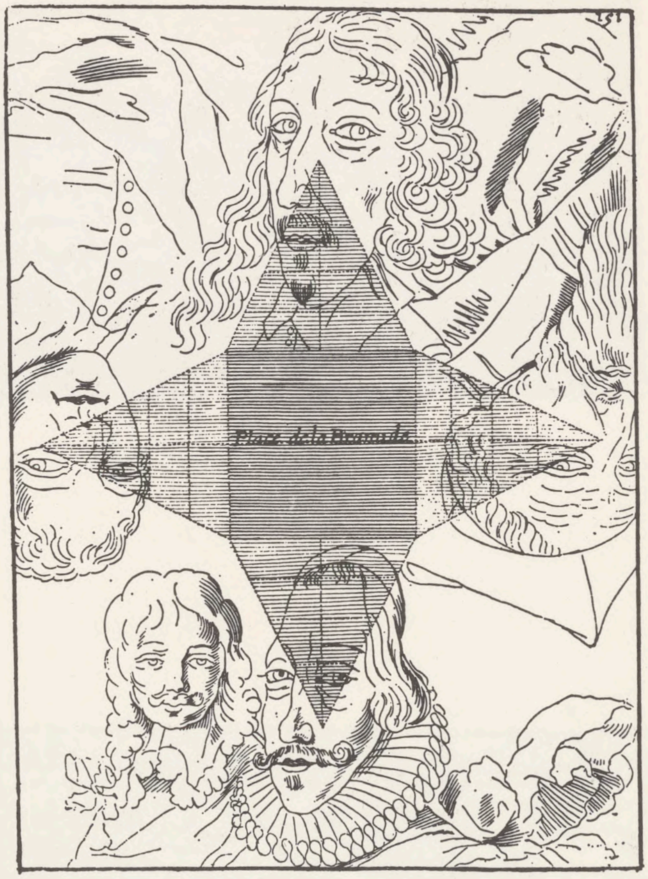


Fig. 6 Jean DuBreuil. *La Perspective pratique*...(Paris, 1649), pt. 3, p. 151
This engraving shows how to make a pyramid anamorphisis.

Possibly a certain necessity existed for camouflaging erotic or obscene themes (Fig. 8; Plates 70 and 71). Moreover, the keyhole effect added to the piquancy of the disguised subject. Erhard Schön, a pupil of Dürer, made adroit use of the natural sequence of observation in one of his anamorphic engravings. In Figure 9, the anamorphosis contains the denouement of a scene featuring an ill-assorted couple. Many Chinese anamorphic representations, which probably served as inspiration for the European ones, display erotic scenes (Plate 71). The fact that it was deemed necessary to camouflage these quite respectable scenes points to a highly developed sense of modesty.

Less well-known mythological scenes and genre pieces enjoyed popularity when anamorphosis had shed its mystery. The 18th century saw the appearance of countless series of engravings for reflection in cone or cylinder, which were copied again and again. Anamorphosis thus became a game, though it still

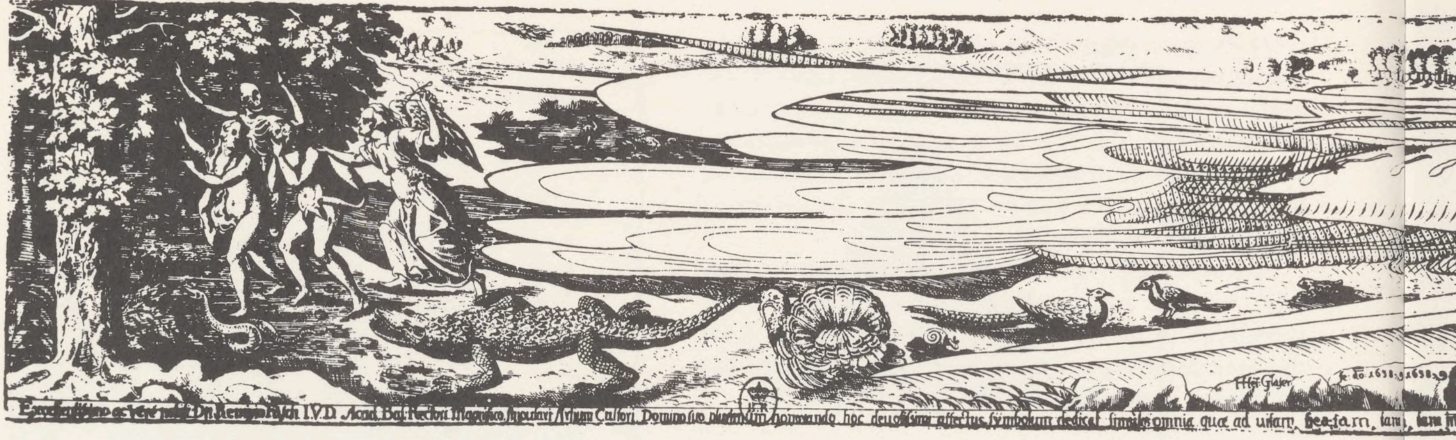


Fig. 7 Johann Heinrich Glaser. Perspective anamorphosis: *Christ with the Crown of Thorns, Flanked on the Right by the Fall from Grace and on the Left by the Expulsion from Paradise.* 1638. Engraving

In this engraving—viewed diagonally from the right—the suffer-

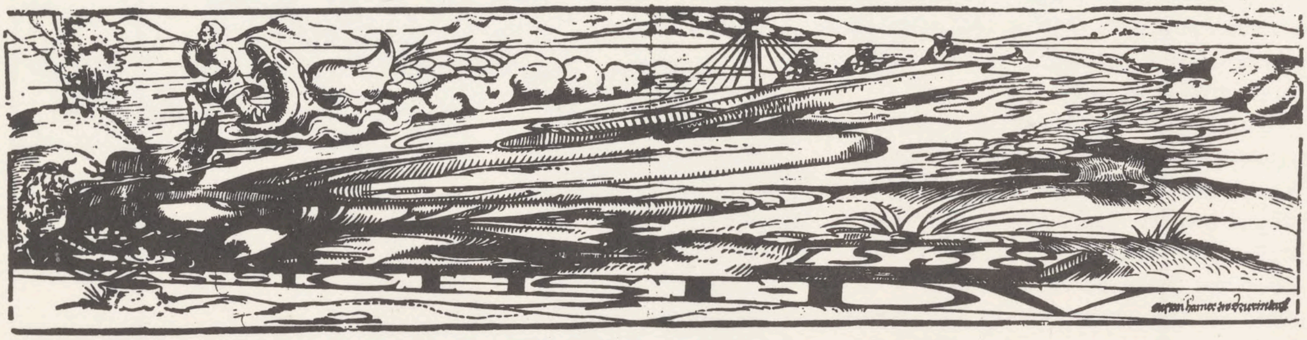
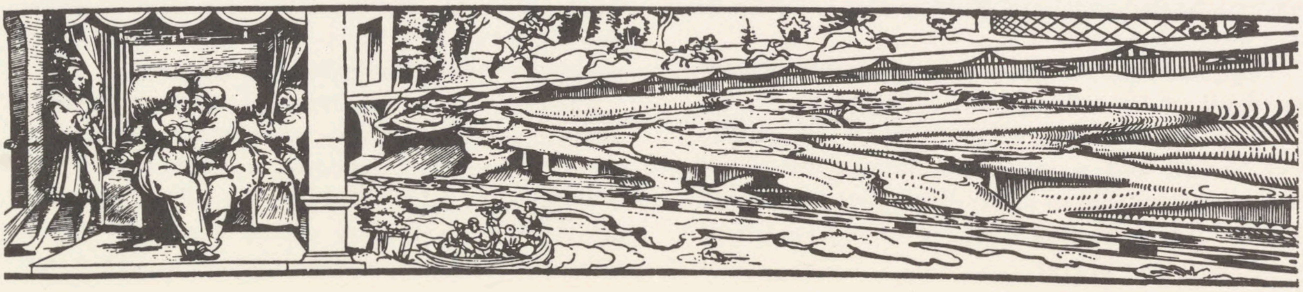


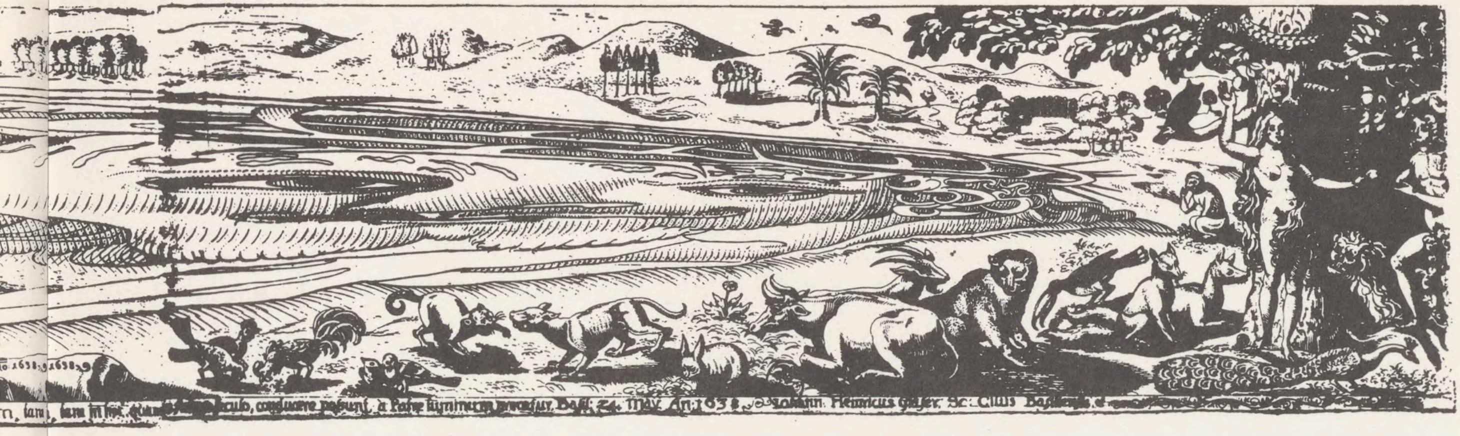
Fig. 8 Erhard Schön. Picture puzzle: *What Do You See?* ("Was siehst du?"). 1538. Woodcut printed and signed by Stefan Hamer of Nuremberg

This type of witty representation proves to be an ever-recurring one. The analogy between the man relieving himself and the whale that spat out Jonah is a truly original interpretation of this Biblical event.

Fig. 9 Erhard Schön. Picture puzzle: *Out, You Old Fool* ("Aus, du alter Tor"). c. 1535. Woodcut

Anamorphoses supplied an ideal means of camouflaging themes that contained double meanings. The distorted representation shows the continuation of the story that could already be guessed at in the normal rendering: The role of the graybeard is played out. The stag harried into the net in the hunting scene at the picture's upper border symbolizes the main theme.

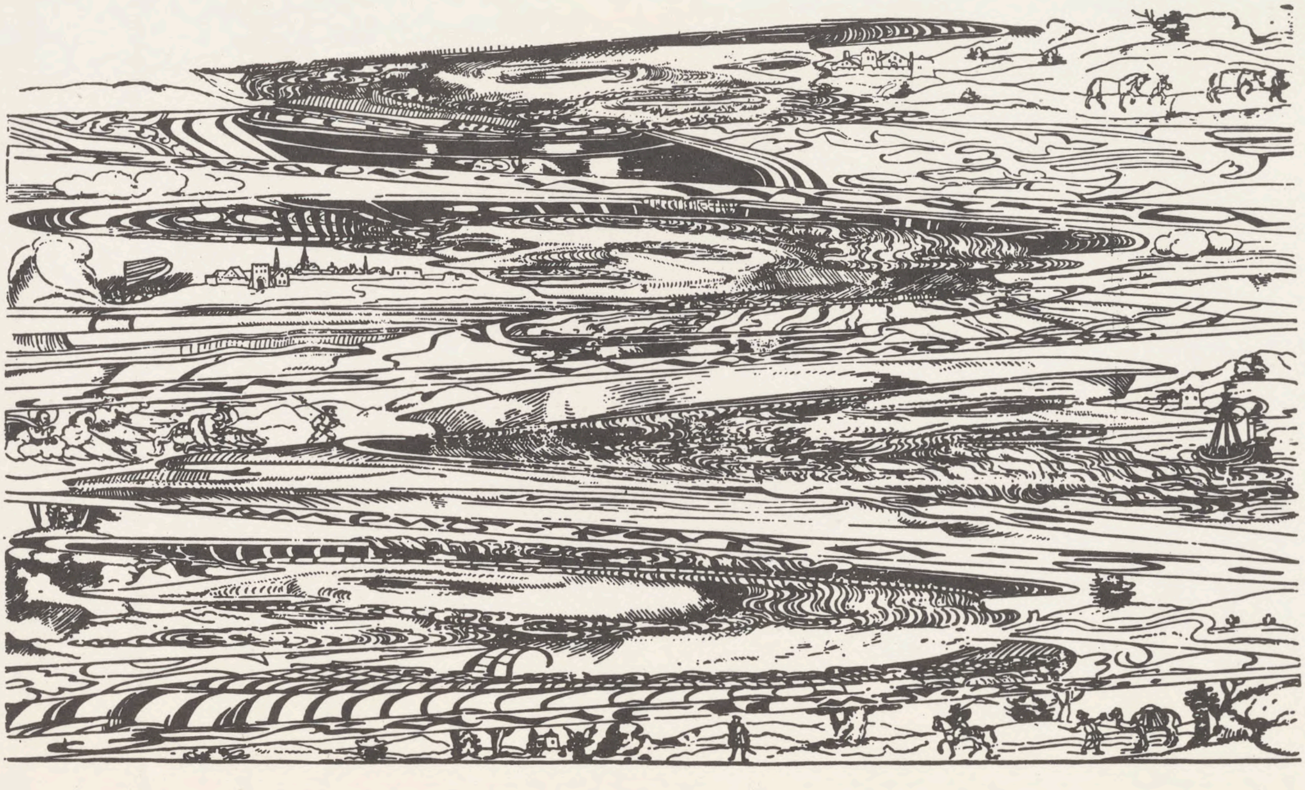



1638 1638
conducere possunt, a Patre humiliter proponuntur. Basil. 24. May. An. 1638. Johann. Henricus Glaser. Sc. Civis Basil

ing Christ appears in the middle of the landscape of paradise. His unseen presence during the commission of the original sin has religious significance. From the inscription one learns that this picture was dedicated to Remigius Fäsch, Chancellor of the University of Basel.

Fig. 10 Erhard Schön. Picture puzzle: *Portraits of Charles V, Ferdinand of Austria, Pope Paul III, and Francis I.* c. 1535. Woodcut, 17⅜ x 29½" (44 x 75 cm)

Unrecognizably distorted and completely hidden in landscapes, four of the leading political figures of their time are here united by Dürer's pupil. Viewed alternately from left and right, the four likenesses, which closely resemble those in other portraits, emerge from the confusion of lines. The virtuosity with which the anamorphic process is used indicates that the experimental phase of this technique is over. Indeed, this anamorphosis verges on caricature.

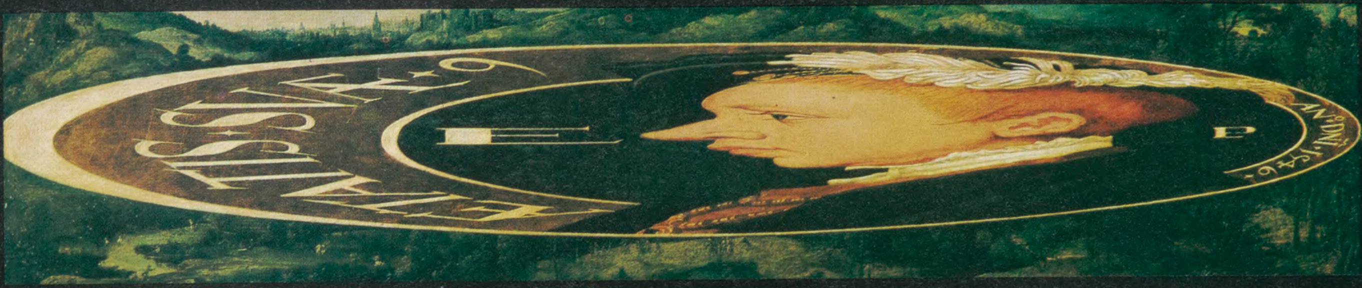


displayed an occasional tinge of scholarship (Plate 73). One result of the cerebral approach to the phenomenon was the production of abstract anamorphic representations (Plate 34).

However, in the case of portraits it was almost a *sine qua non* that they should be easily recognizable by everyone. When viewed from the correct point, the anamorphic effect then became much more striking. This explains why portraits of royalty fill this category almost exclusively (Plate 1). Here, too, Schön took the initiative, in an impressive woodcut (Fig. 10). This print is filled in zigzag fashion with abstract subjects embedded in landscapes. Viewed alternately from left and right, the portraits of the four major political figures of his time are revealed, surrounded by scenes expressive of their attitude toward the Turks.

The purest example of rendering a well-known likeness in unrecognizable form is William Scrots's anamorphic portrait of Edward VI (Plate 1). The observer is able to check the correctness of his viewpoint by means of the circular lettering, which is stretched to an oval shape by anamorphosis.

A combination of a distorted royal portrait and a symbol of man's transient existence can be found in a cylinder anamorphosis of Charles I of England, now in the Nationalmuseum in Stockholm. The artist has painted a skull at the exact spot where the cylinder must be placed. The cylinder reflects a portrait of the beheaded king Charles. This ephemeral image in the mirror, which also may be regarded as a symbol of the evanescence of all earthly things, acquires a clearly defined significance. Many artists since Holbein have recognized this illusionary nature of anamorphic representation and alluded to the relativity of human existence through their choice of subject and technique (Plates 35 and 36).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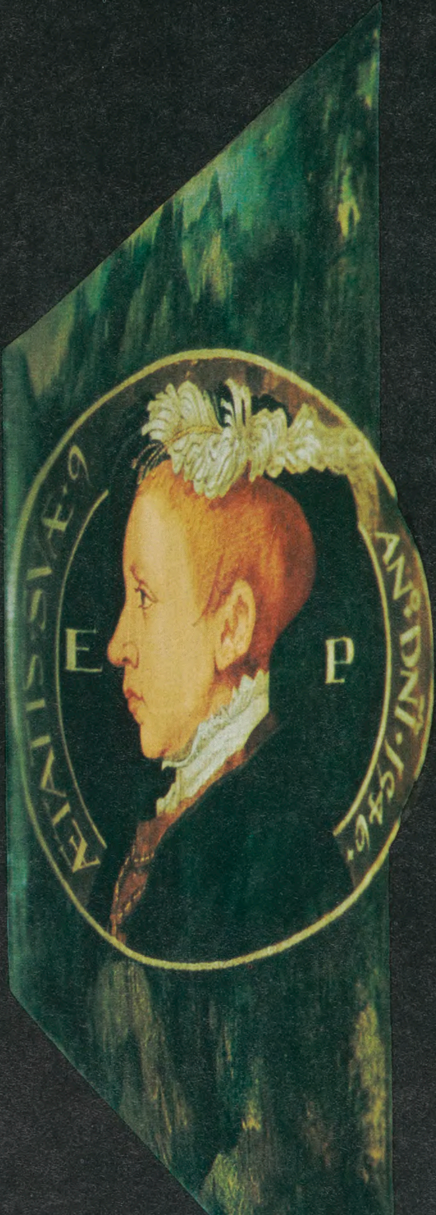
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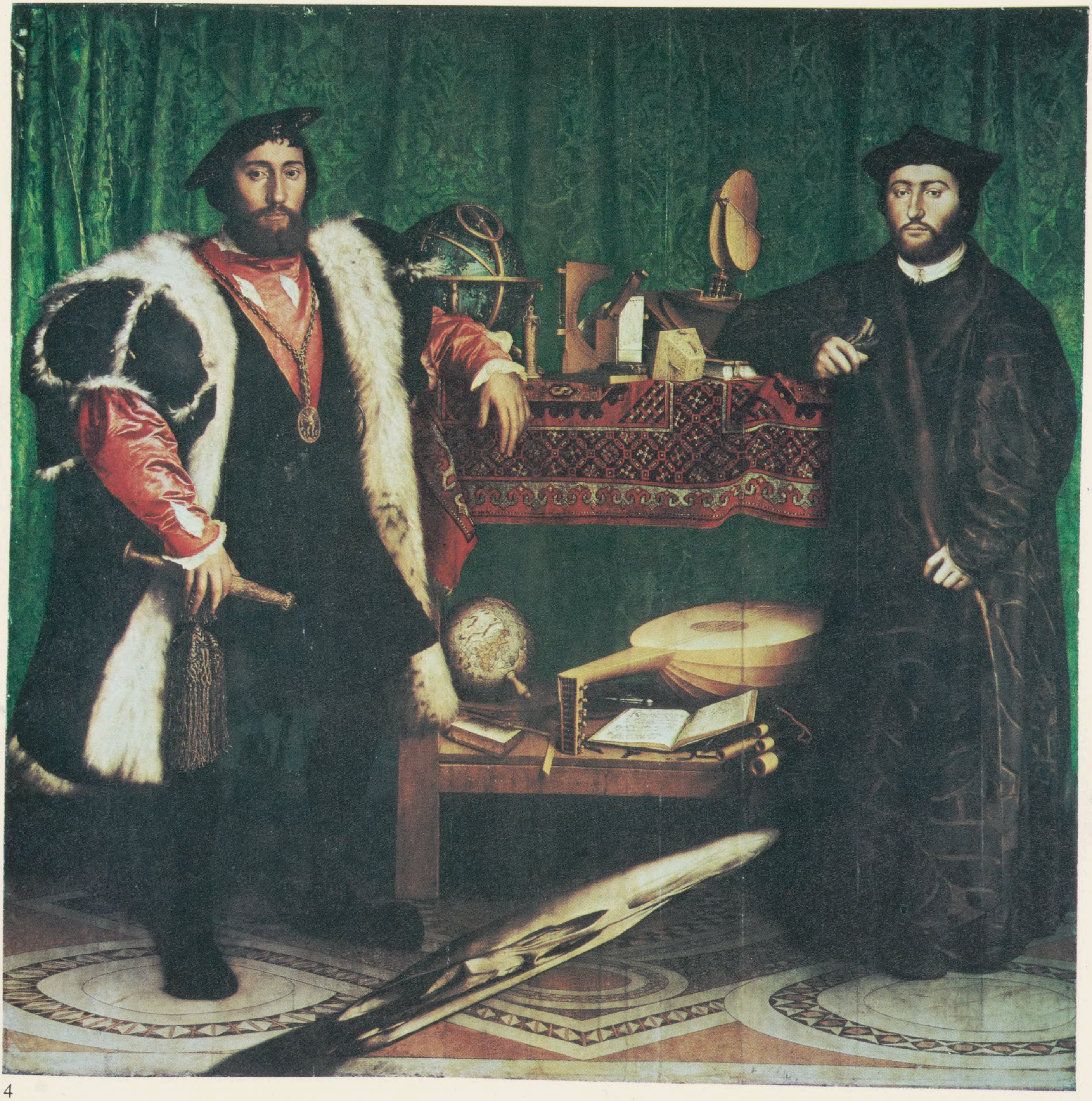

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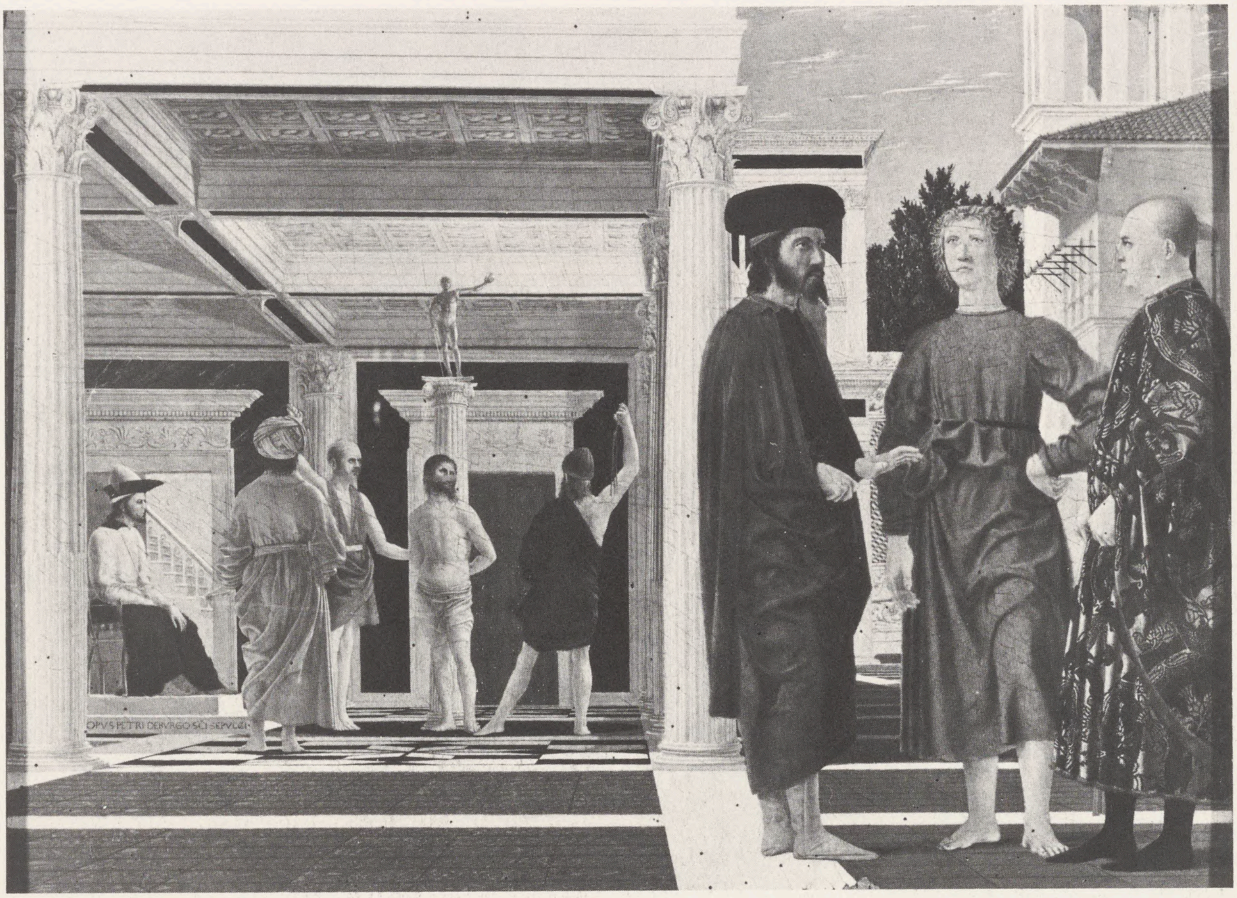
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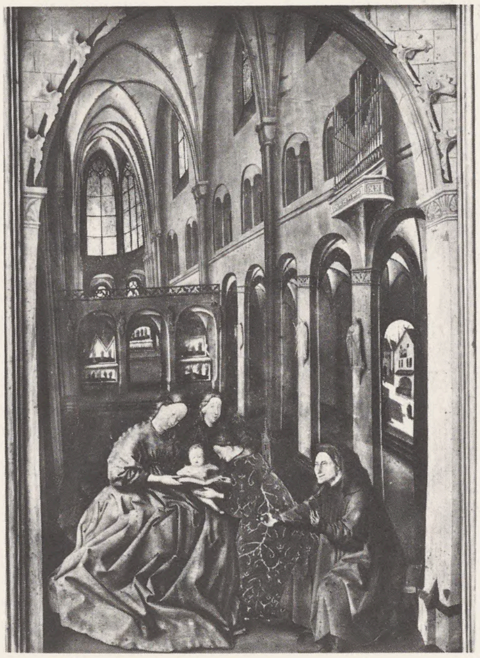

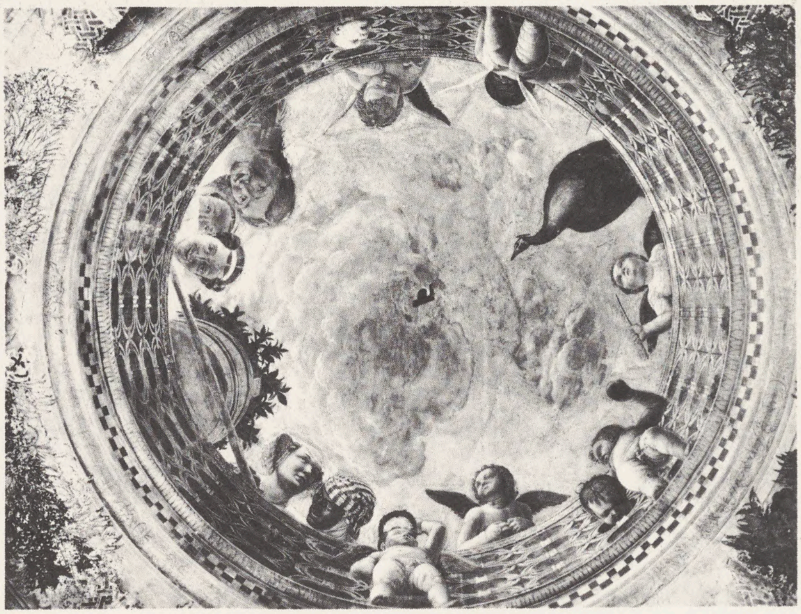

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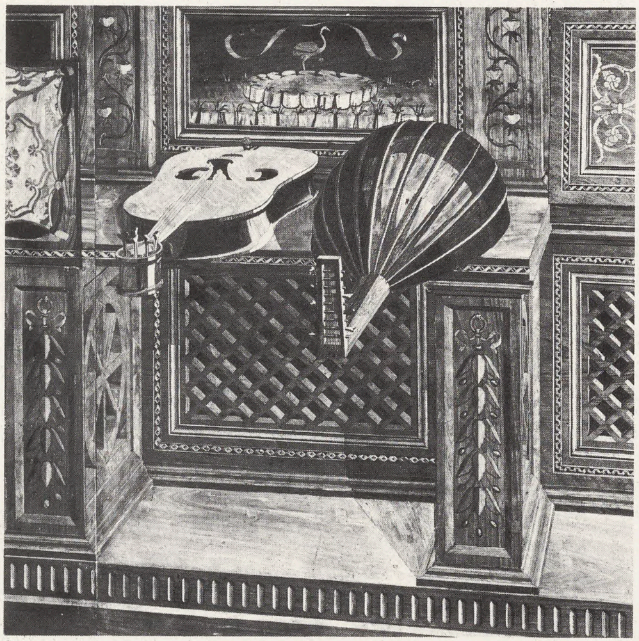
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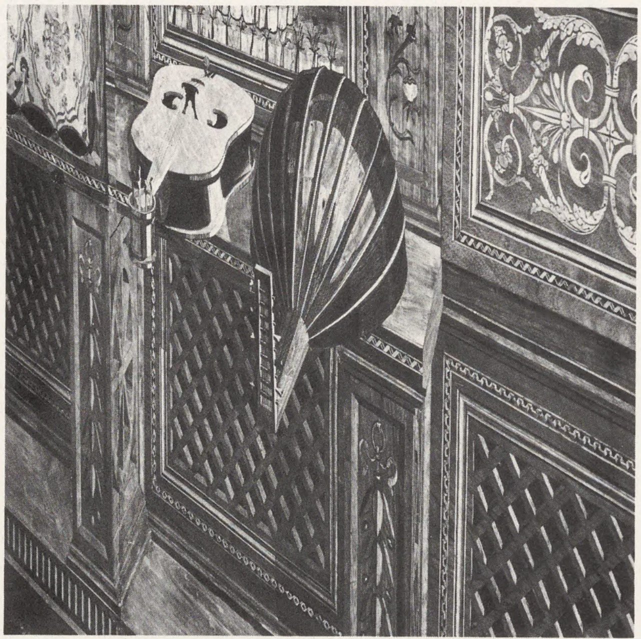
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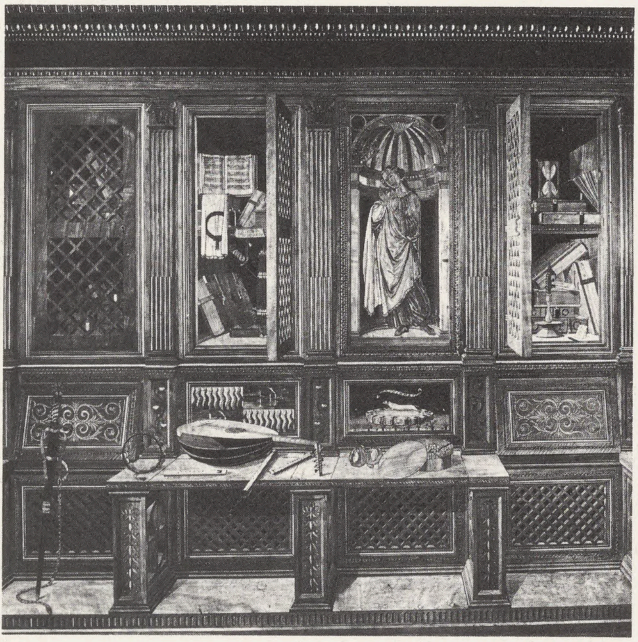
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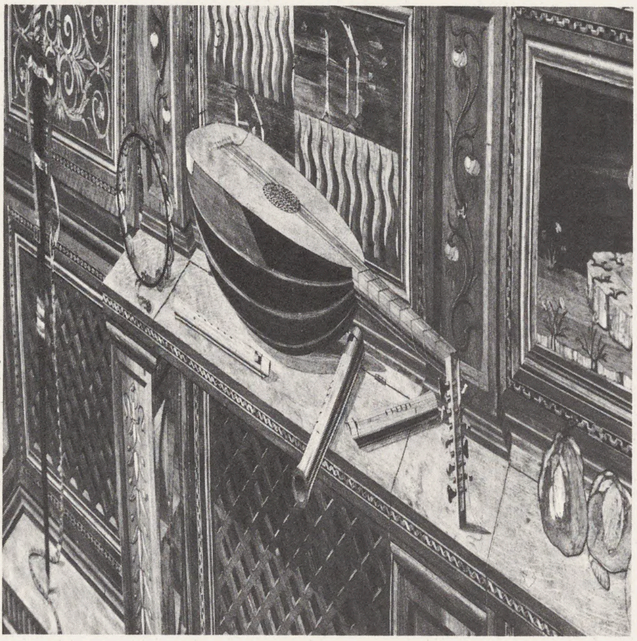
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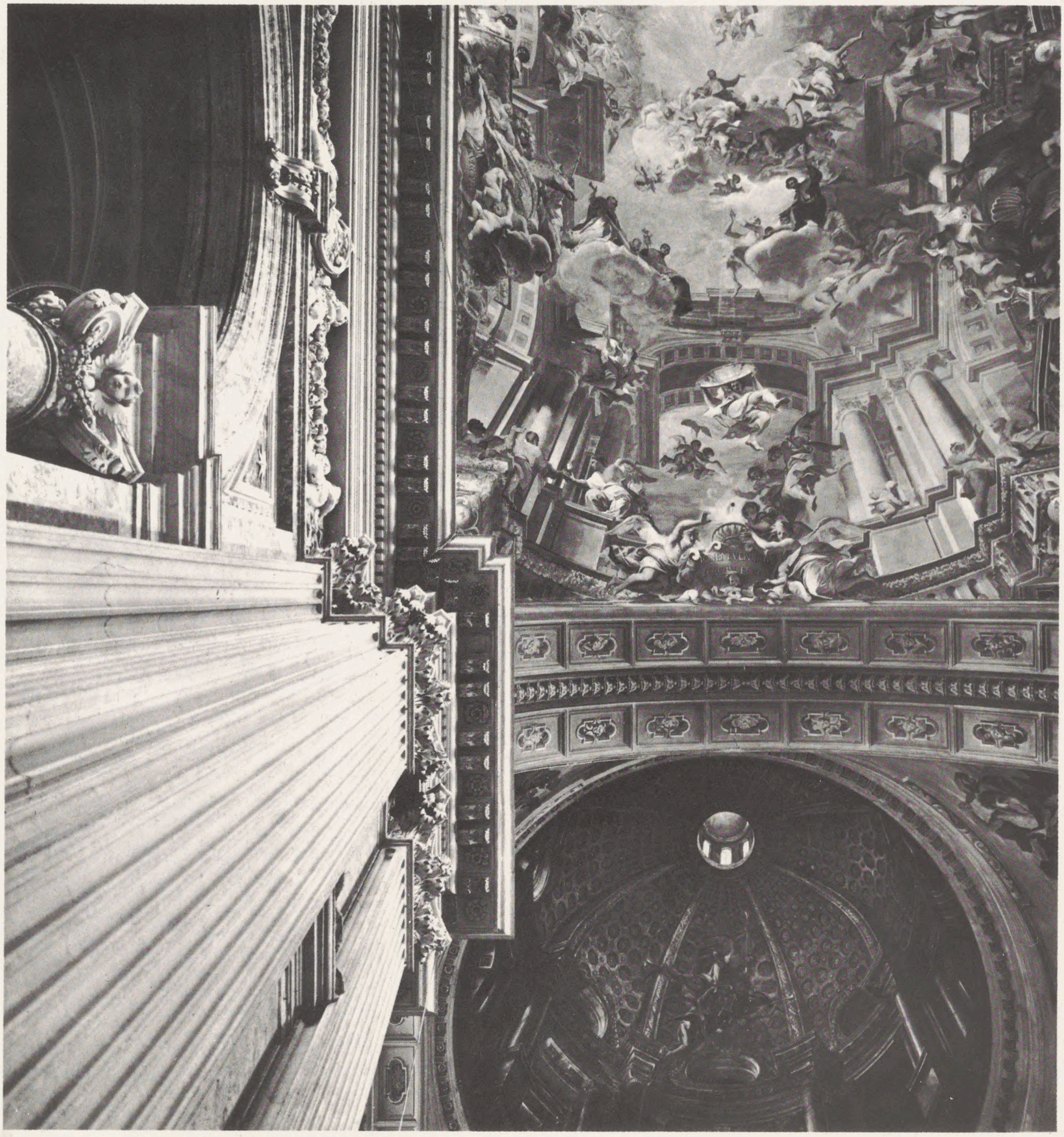

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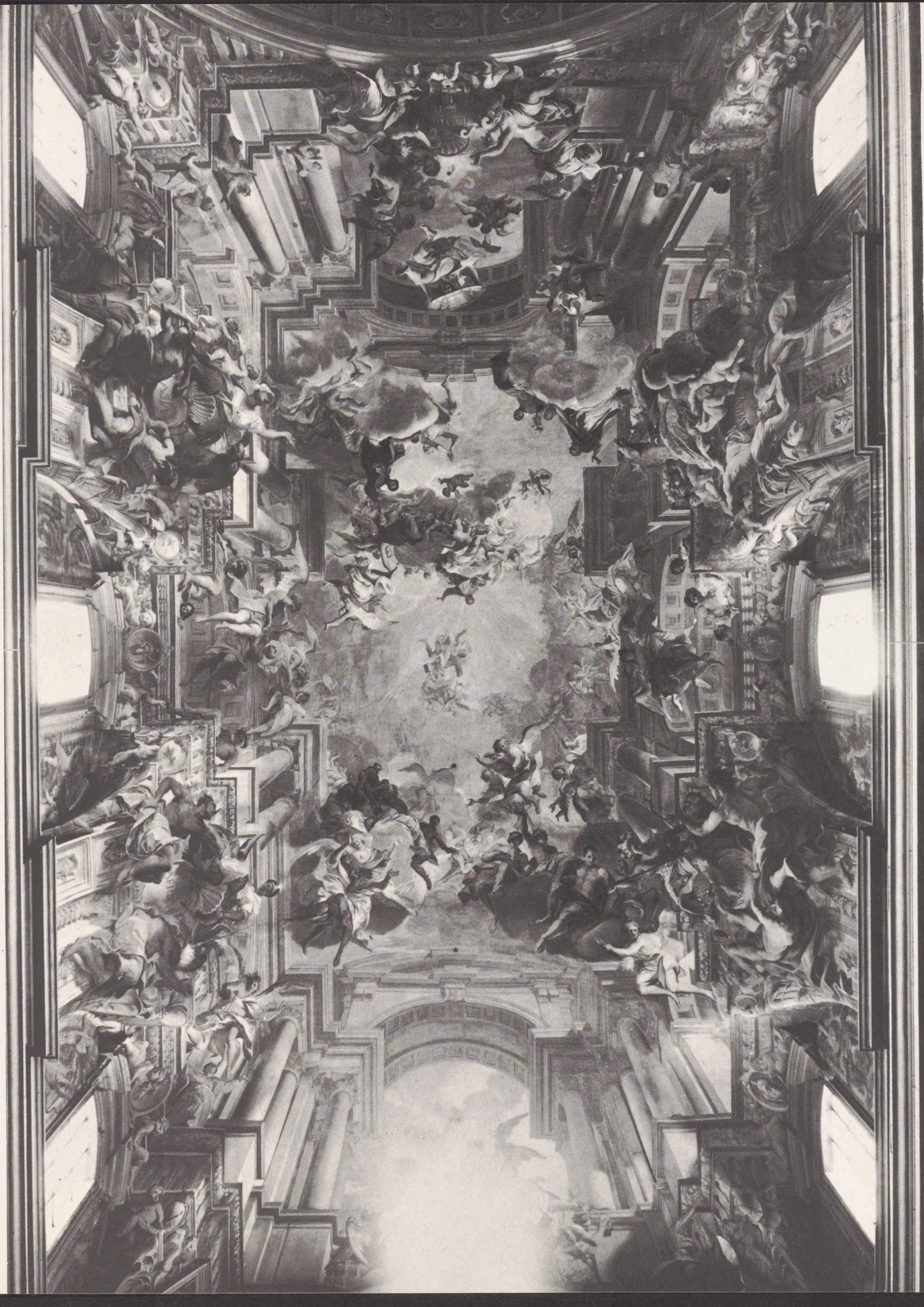

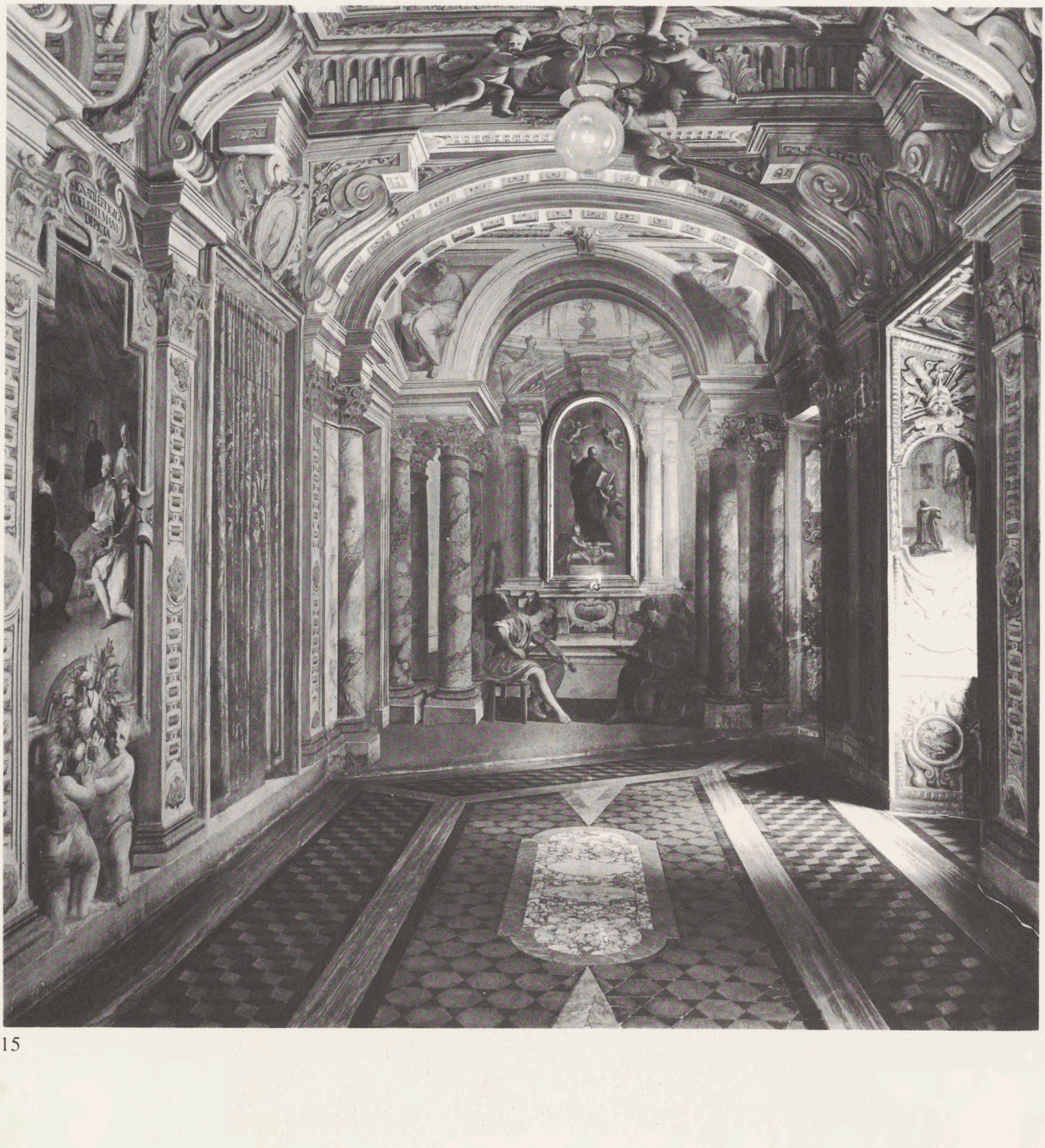

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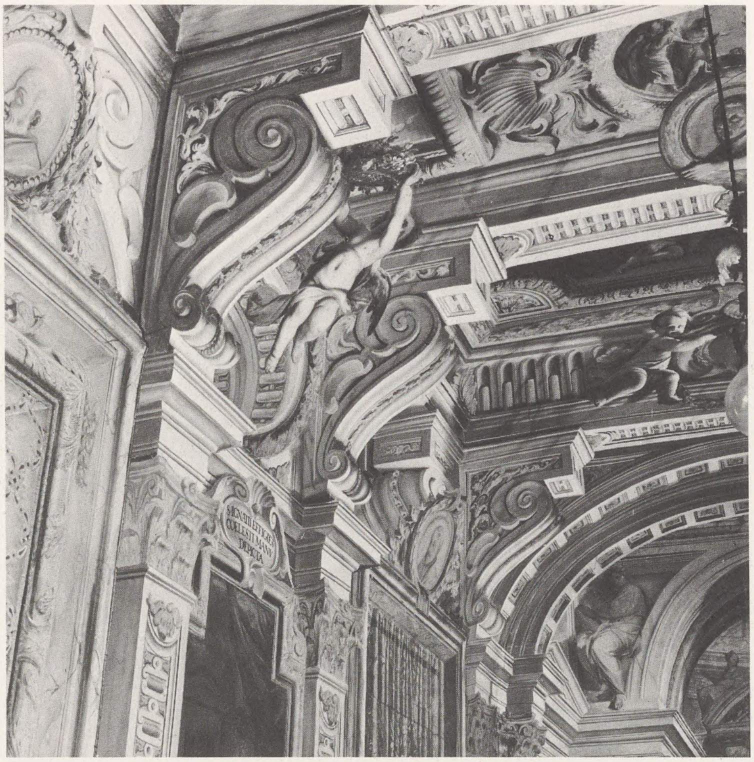

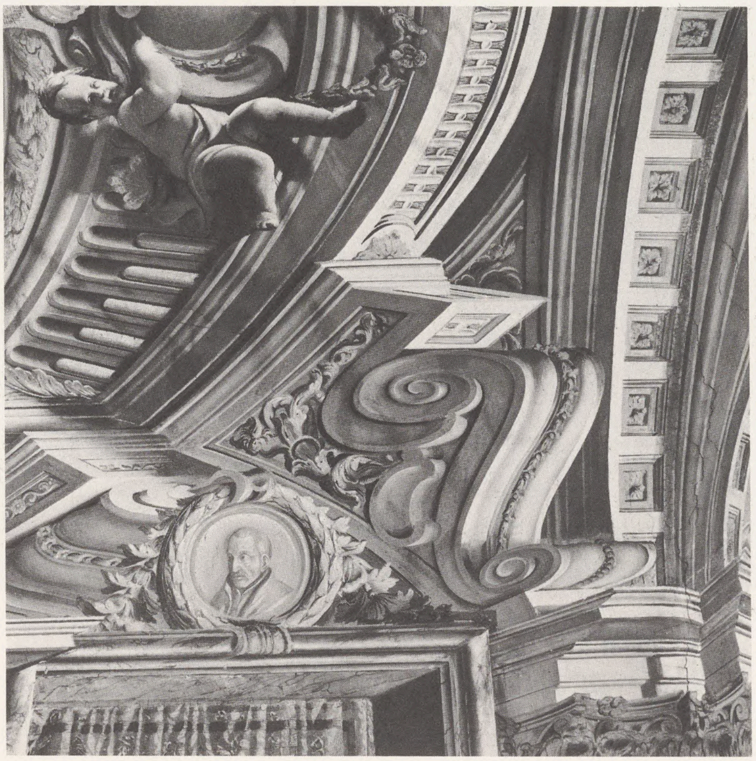

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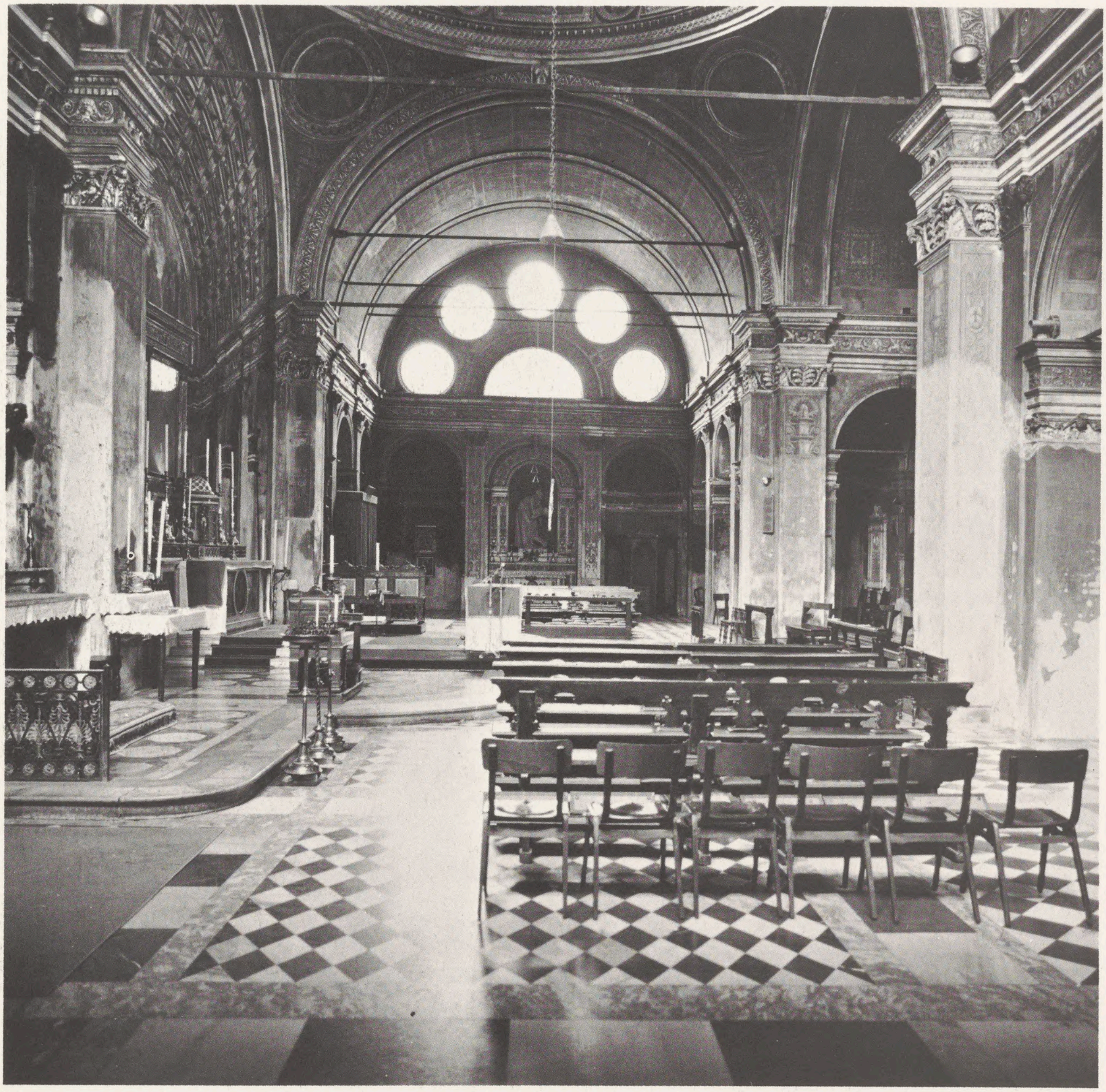

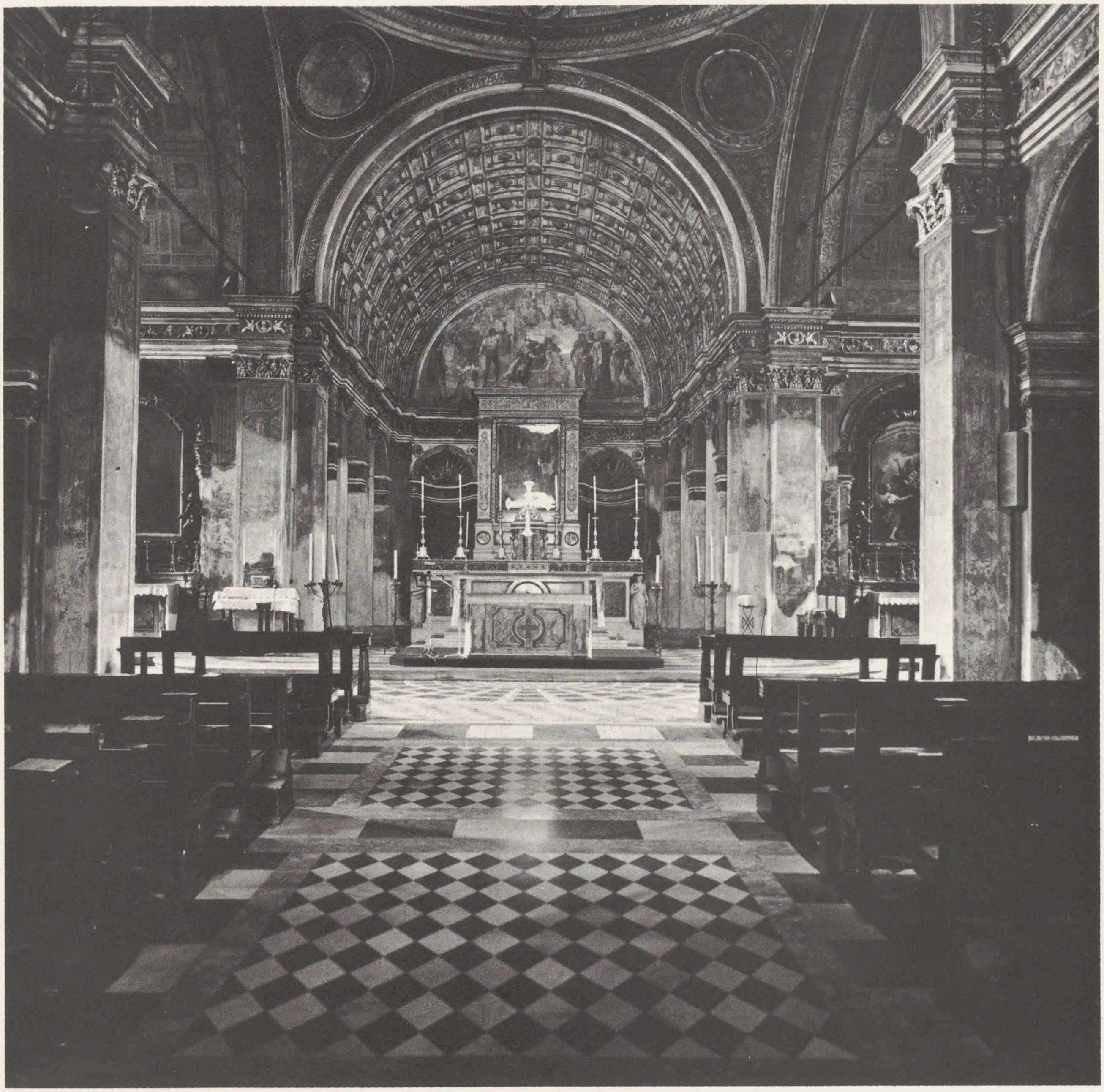

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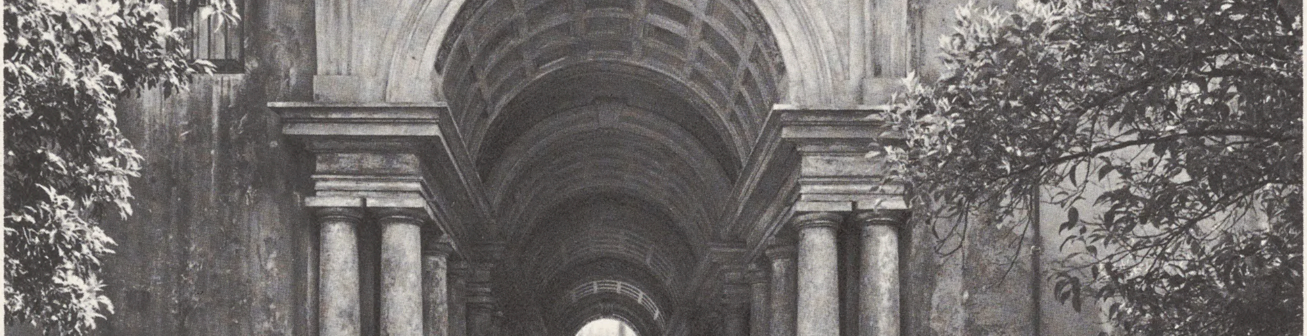

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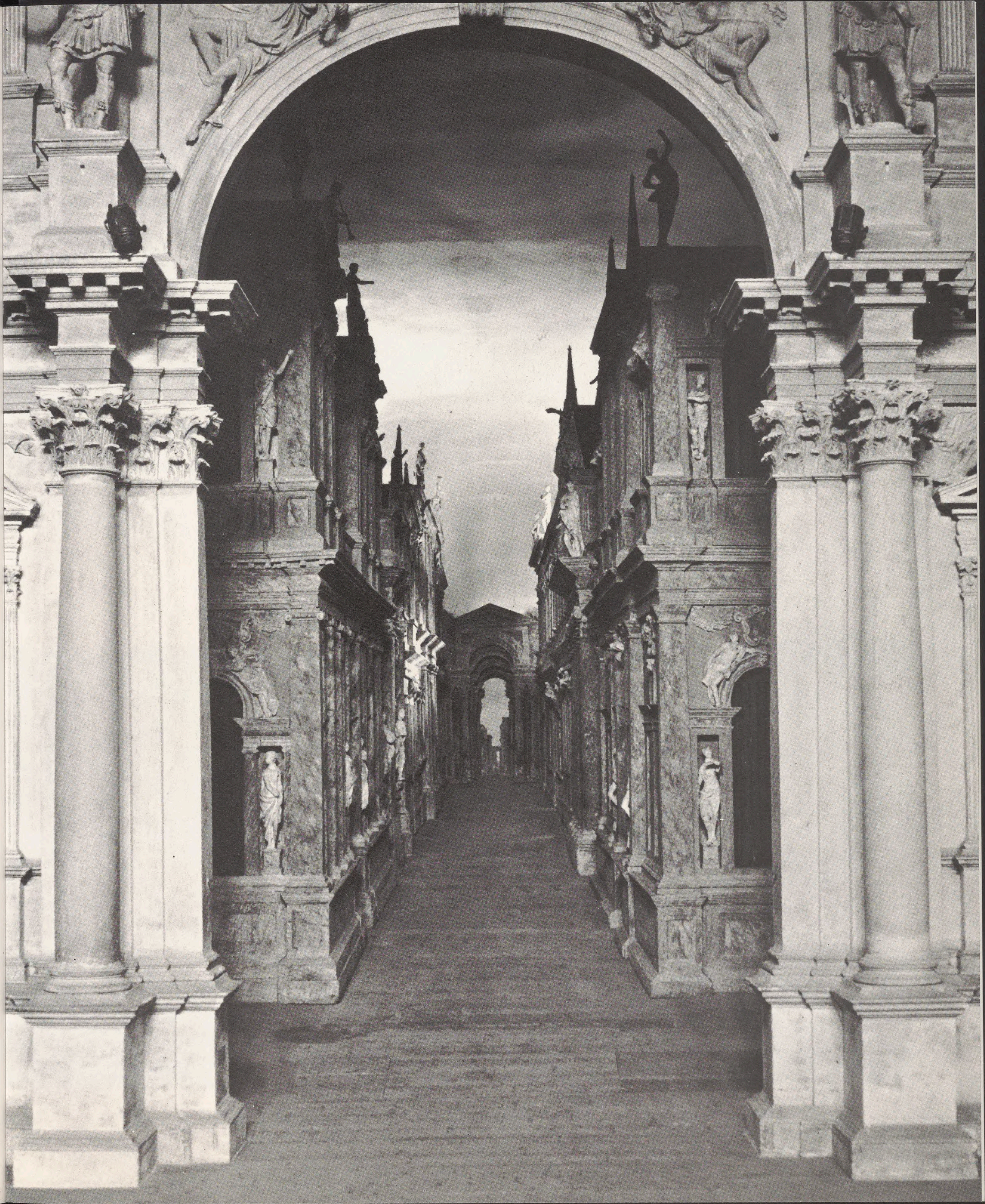

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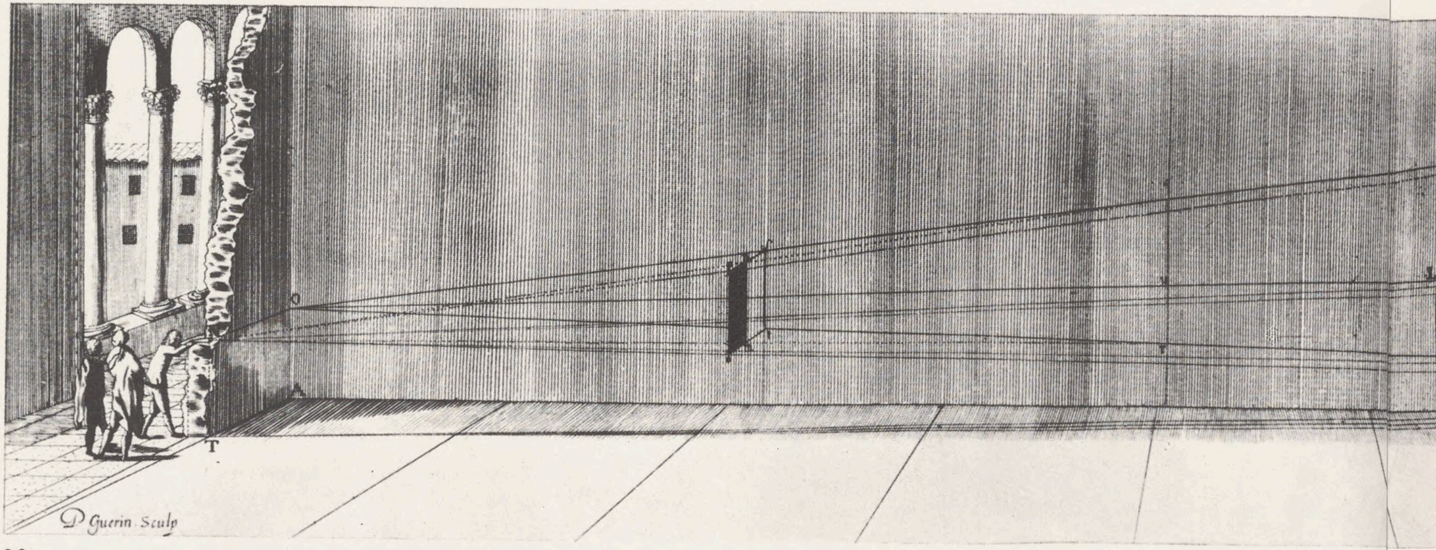

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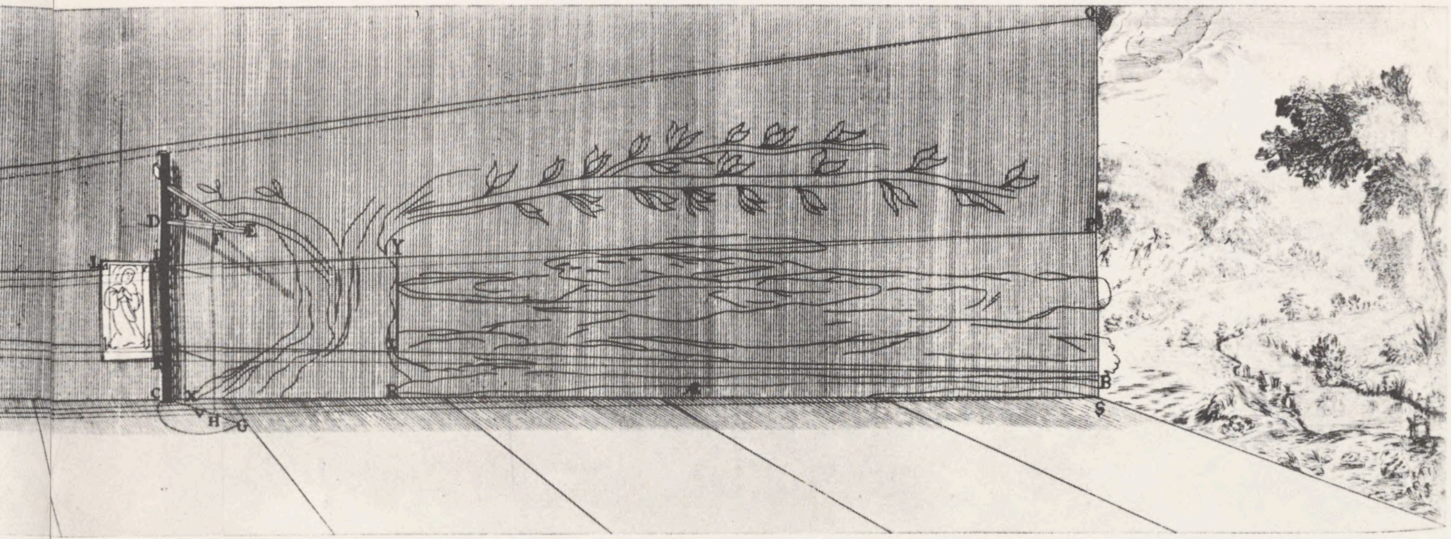
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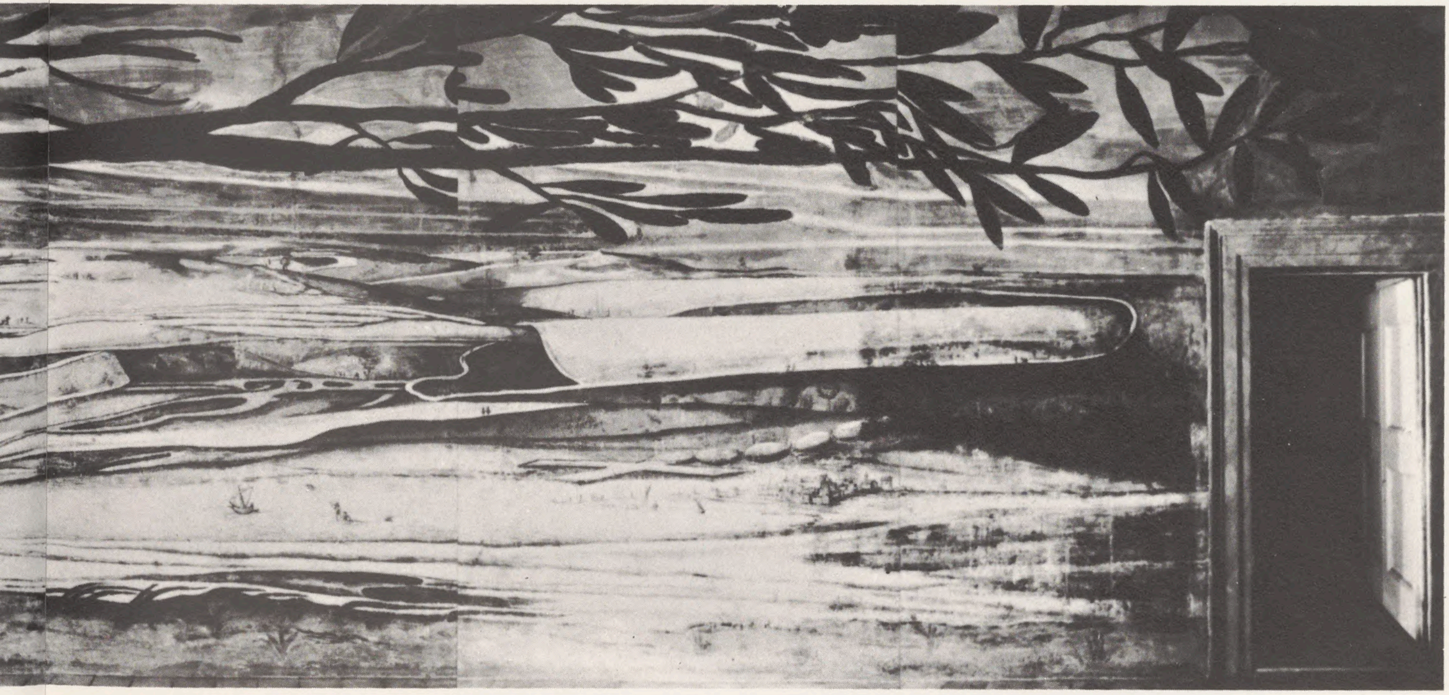

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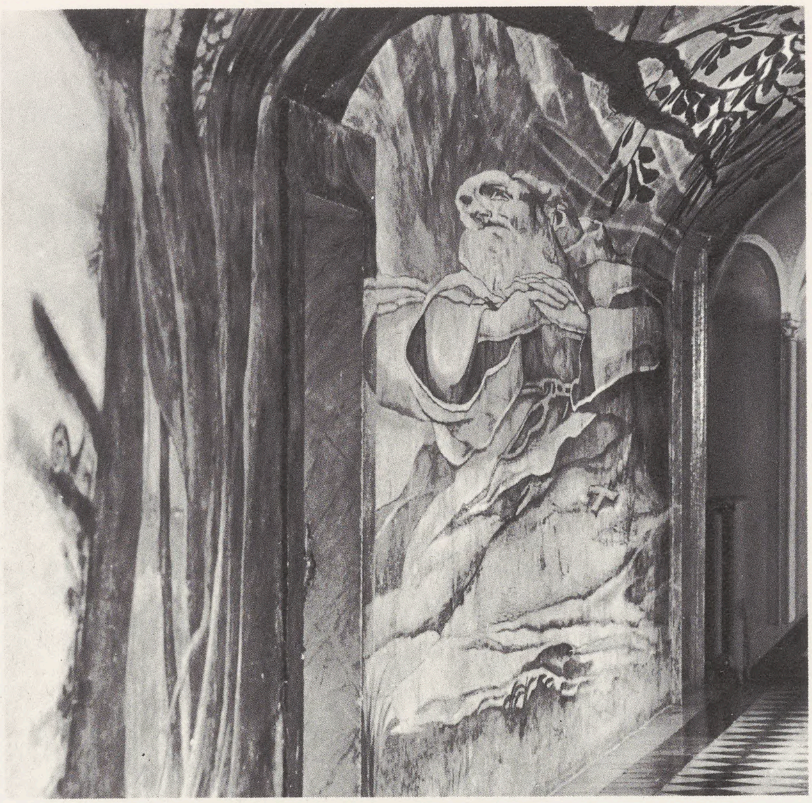

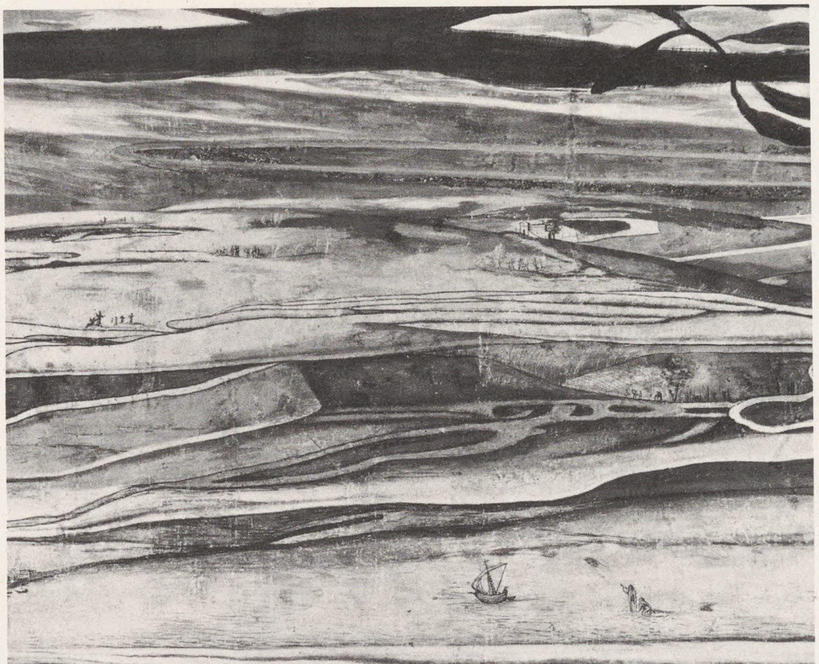

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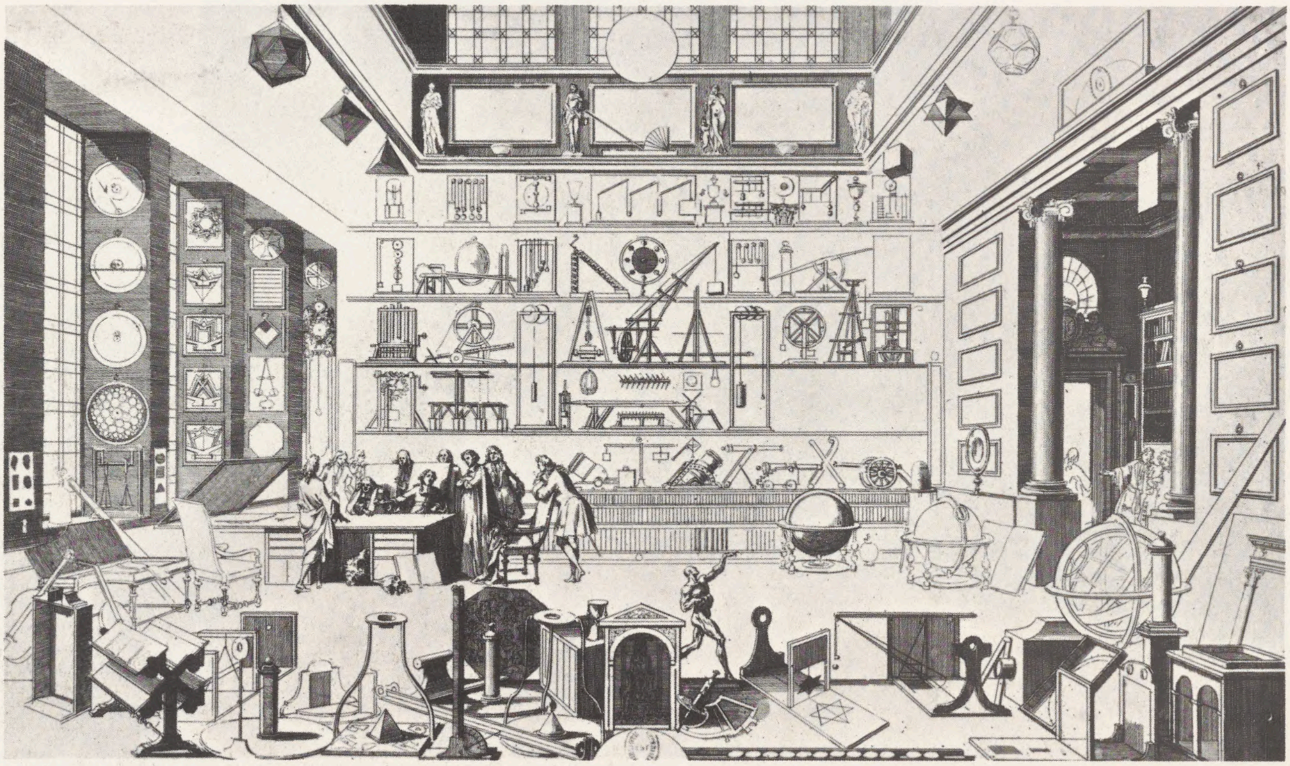

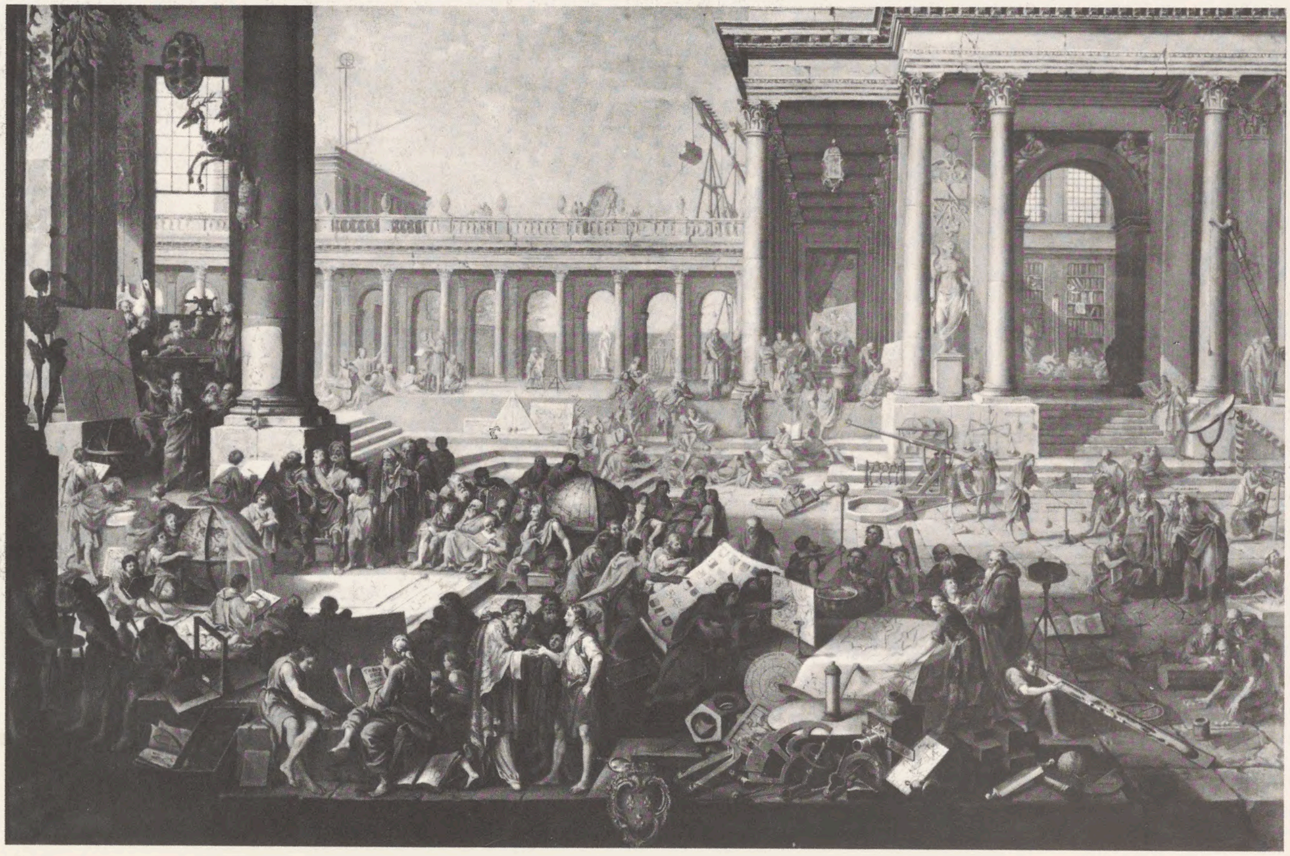

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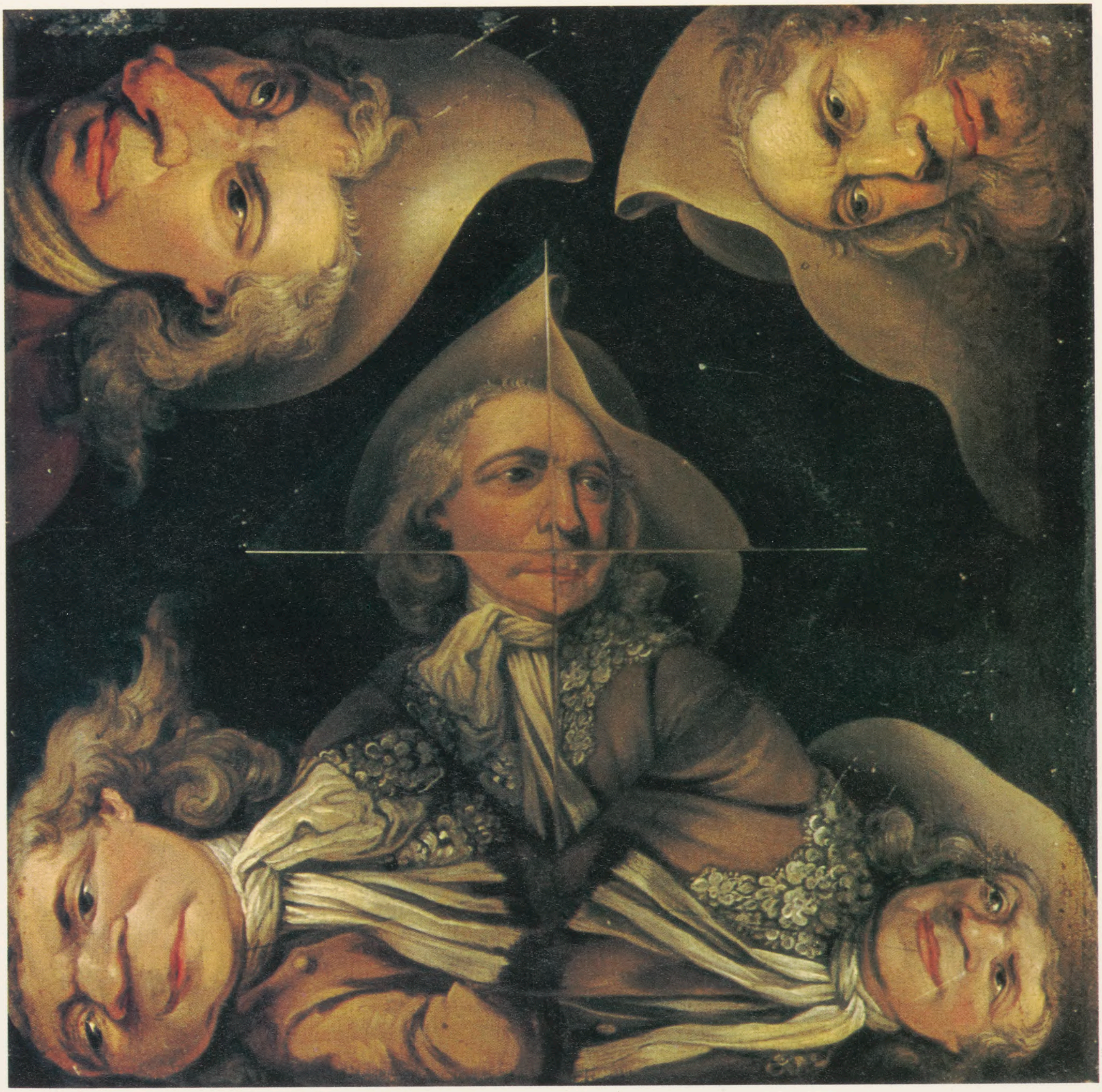

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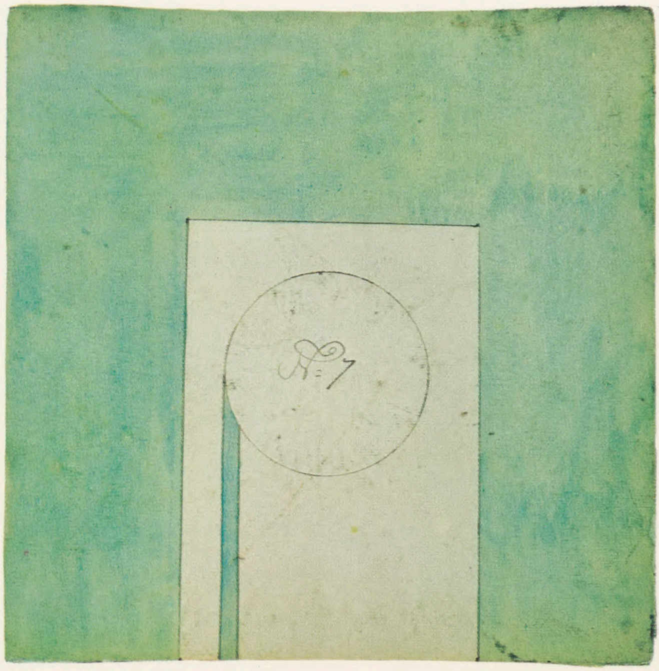

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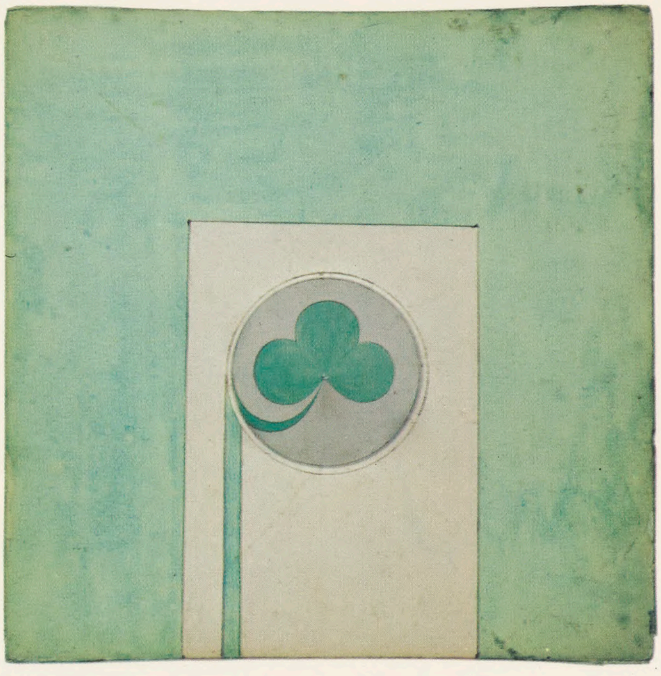

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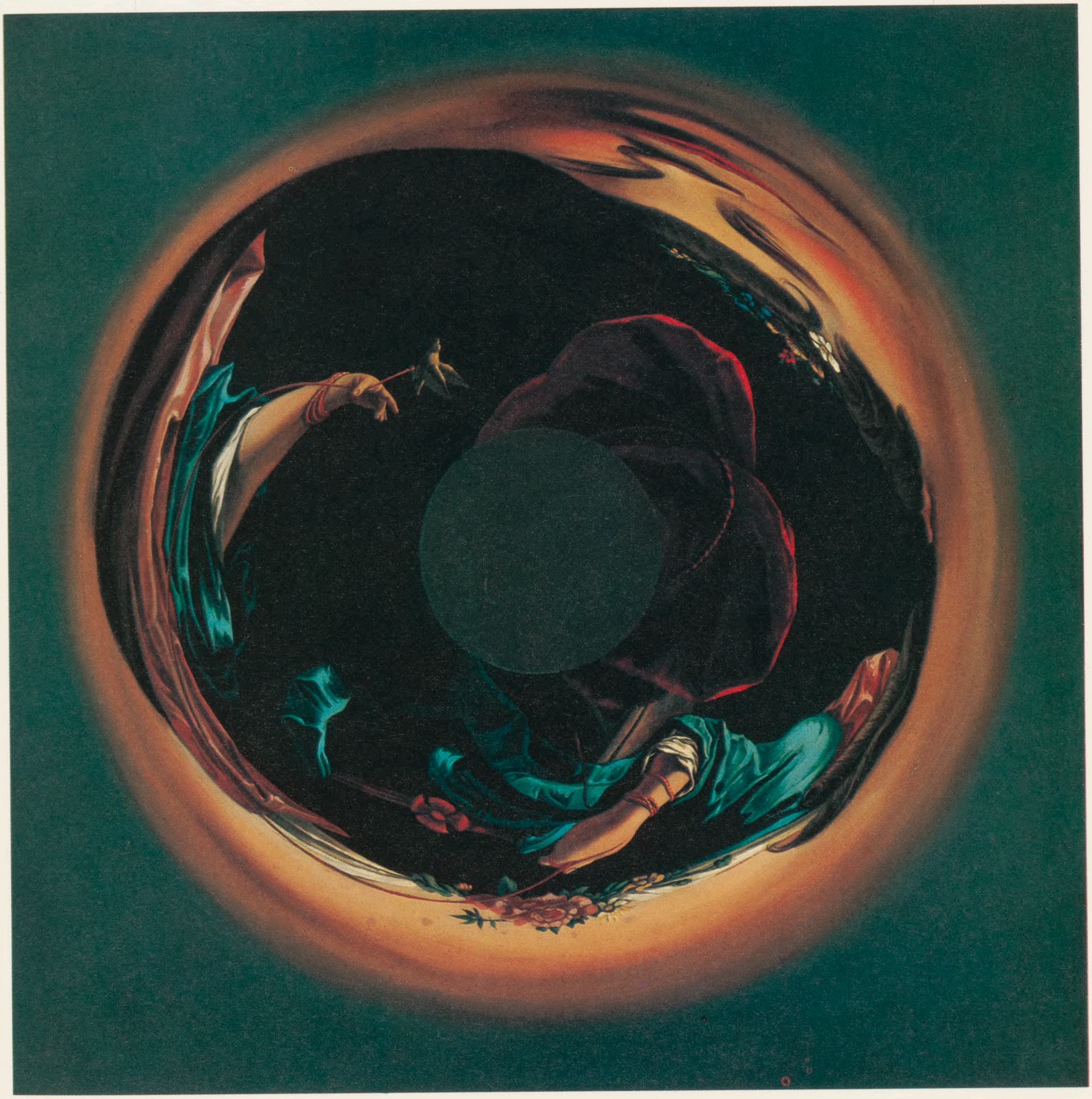

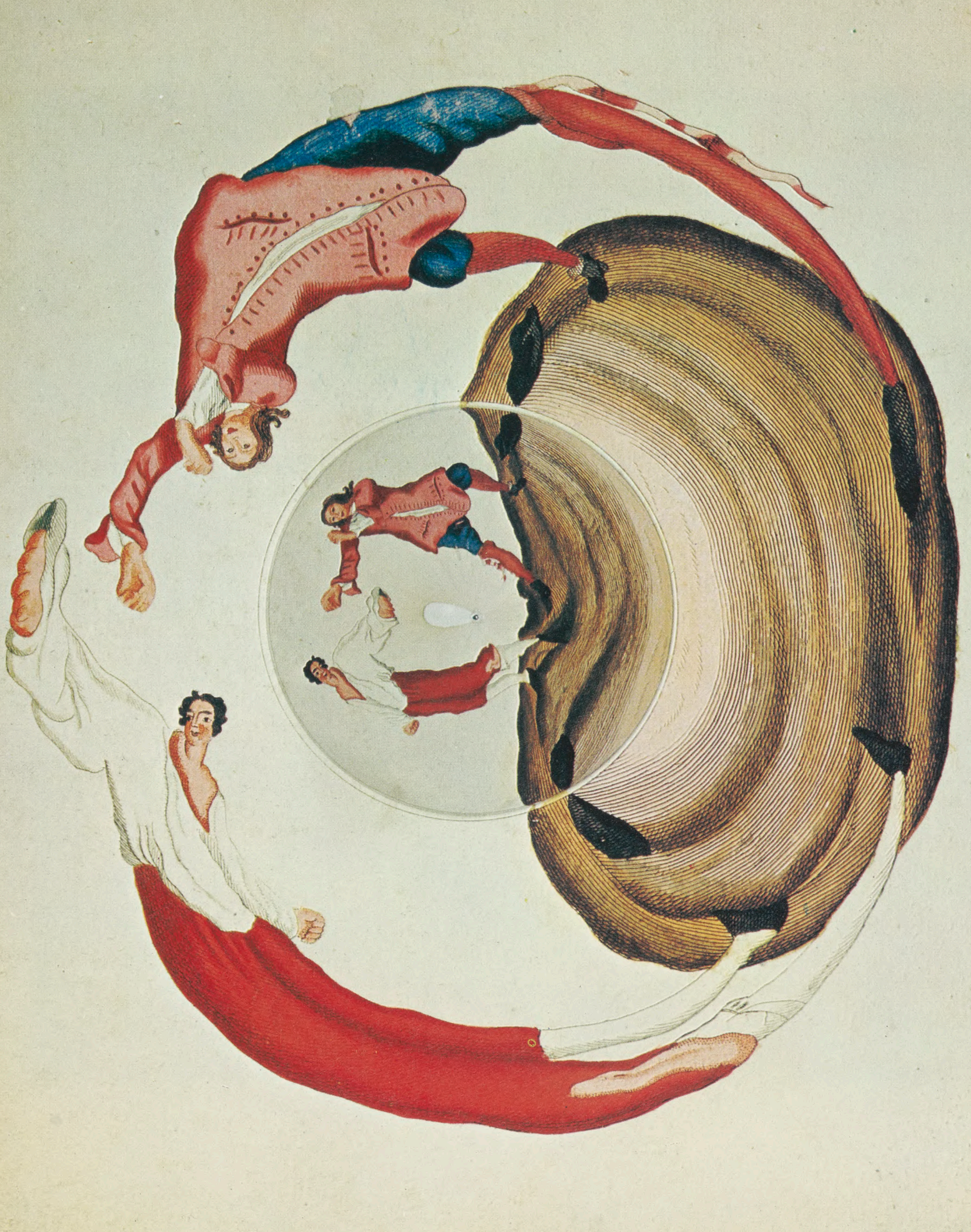

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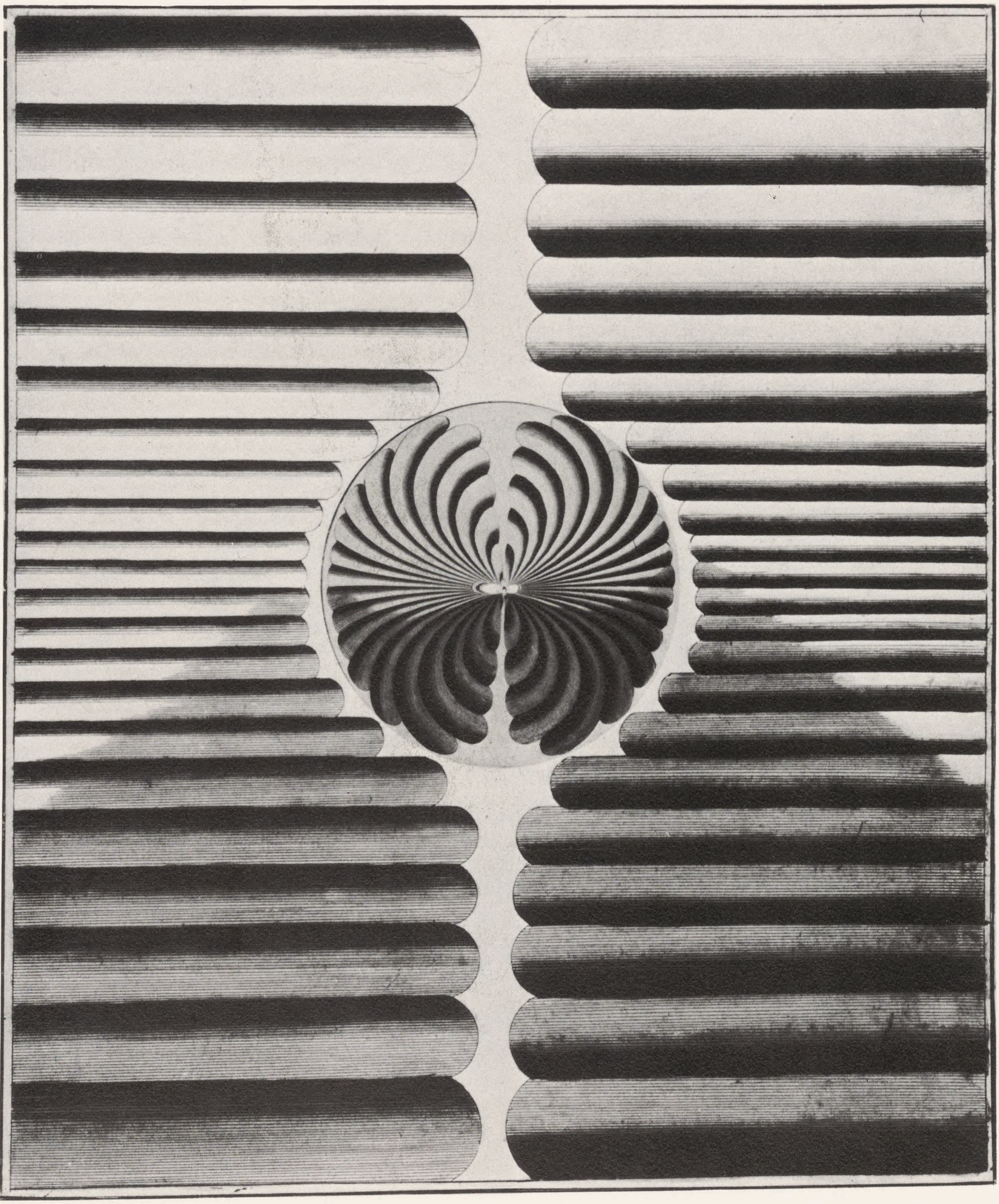

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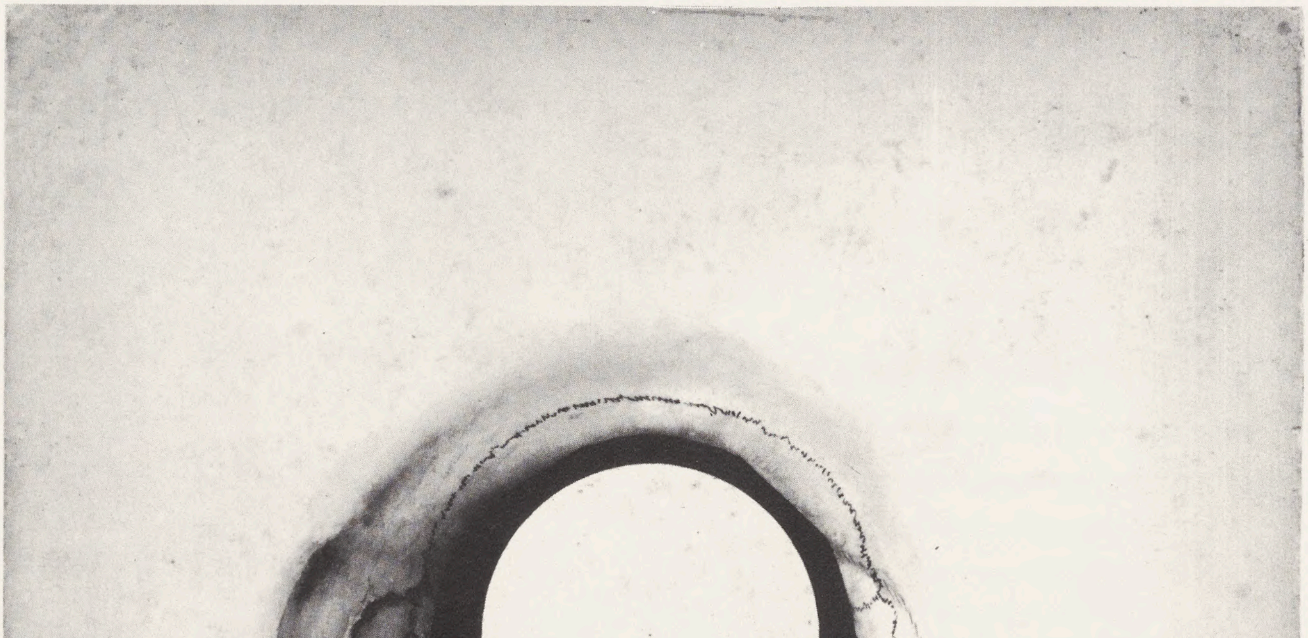

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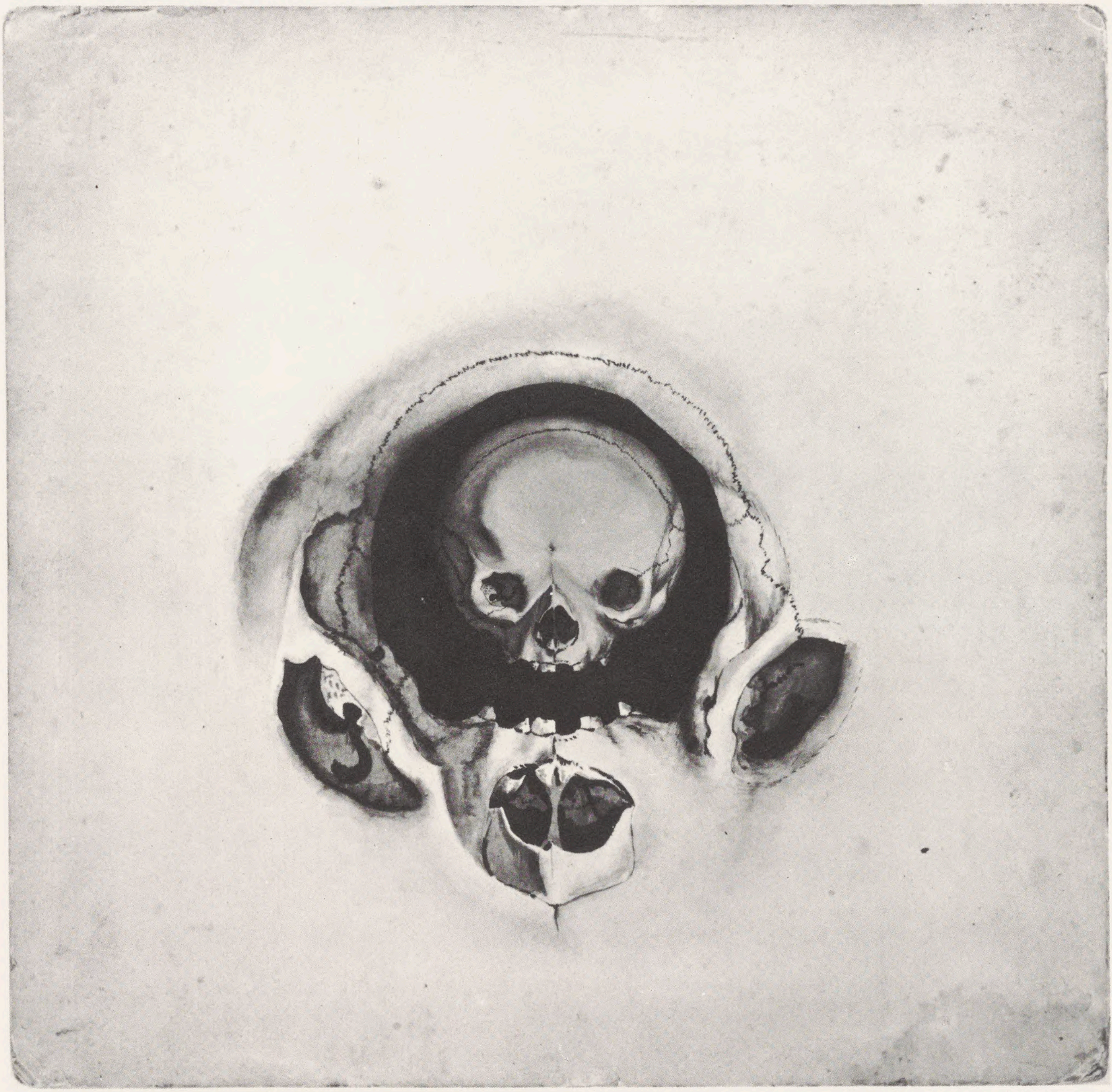

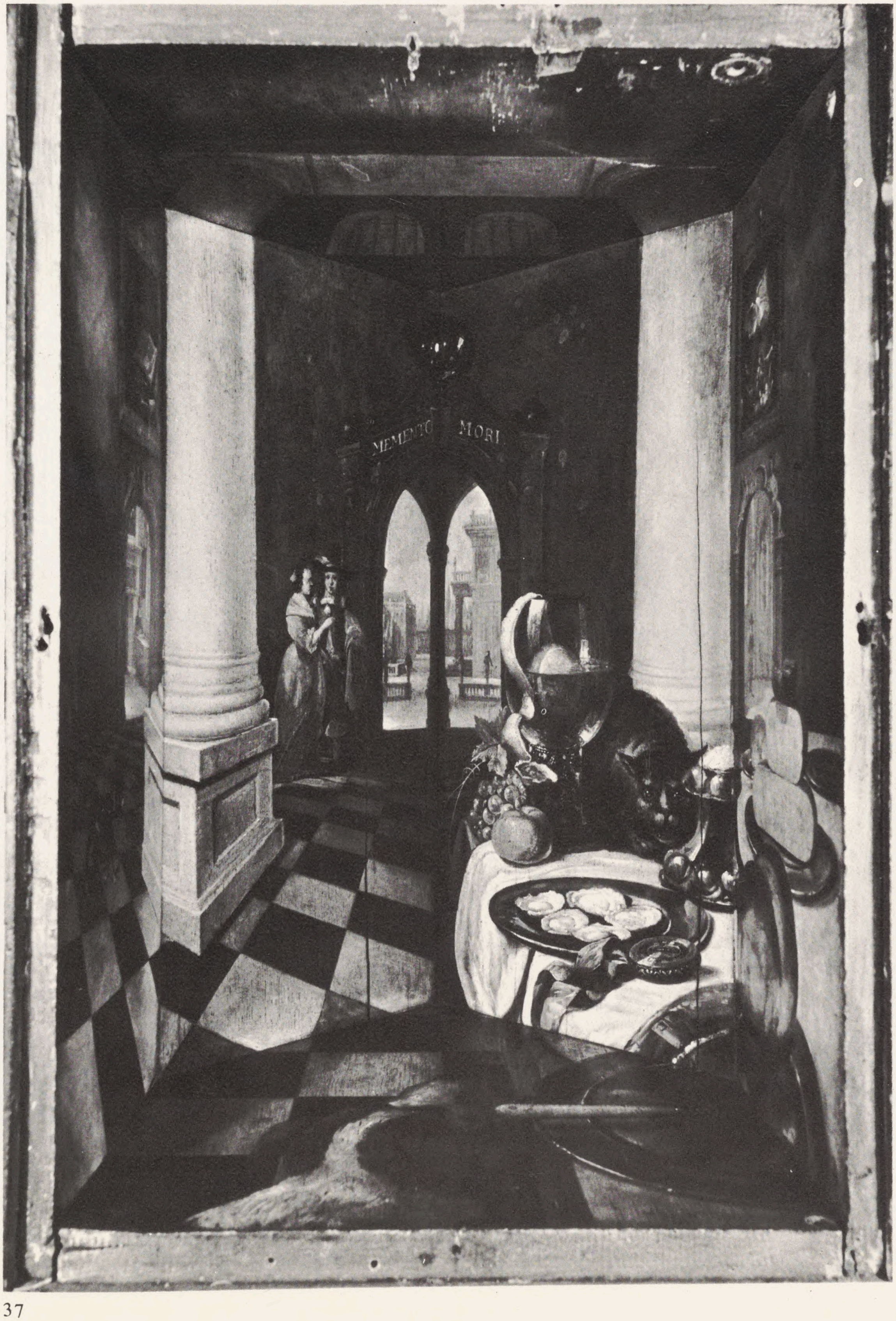

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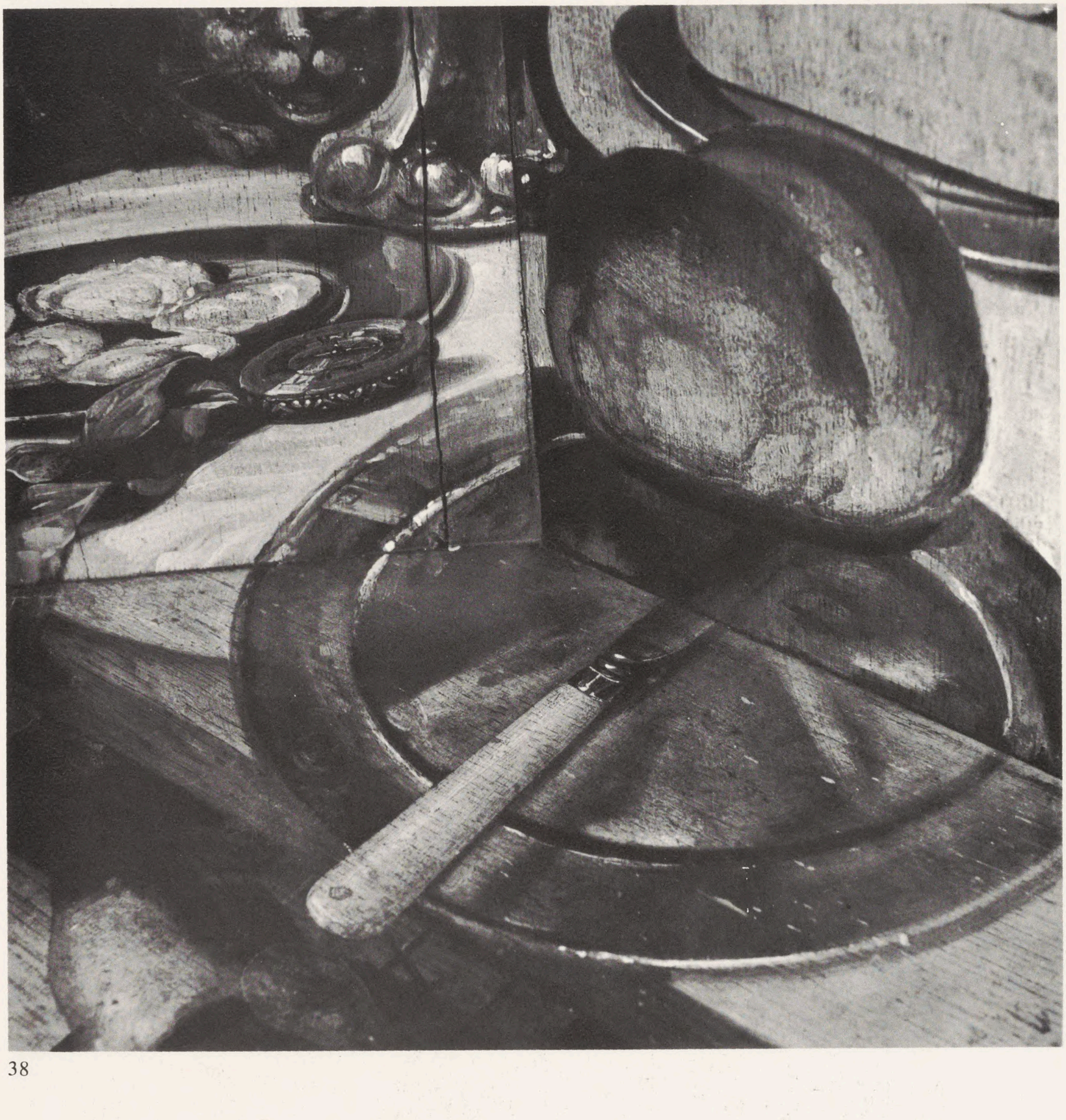

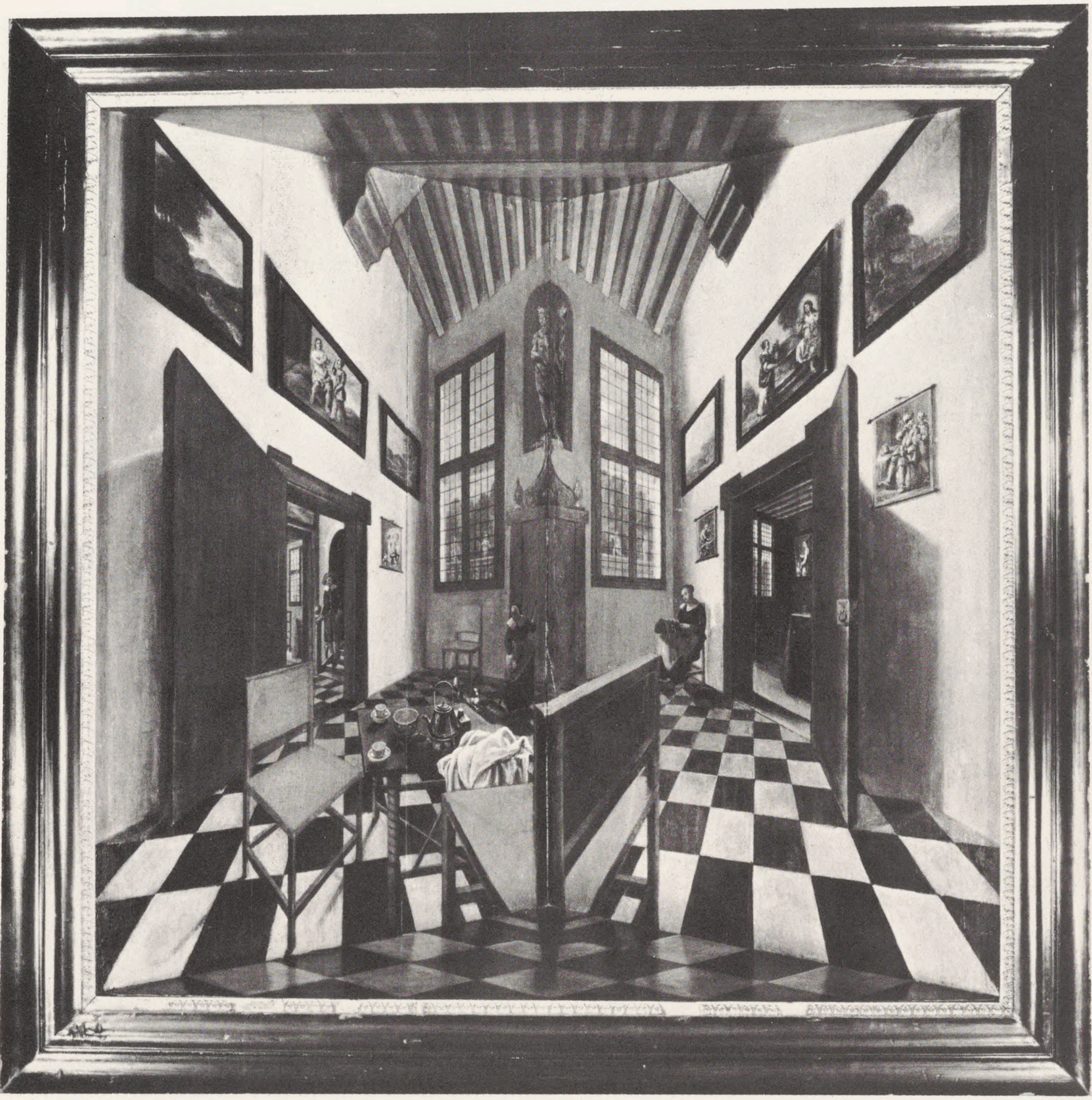

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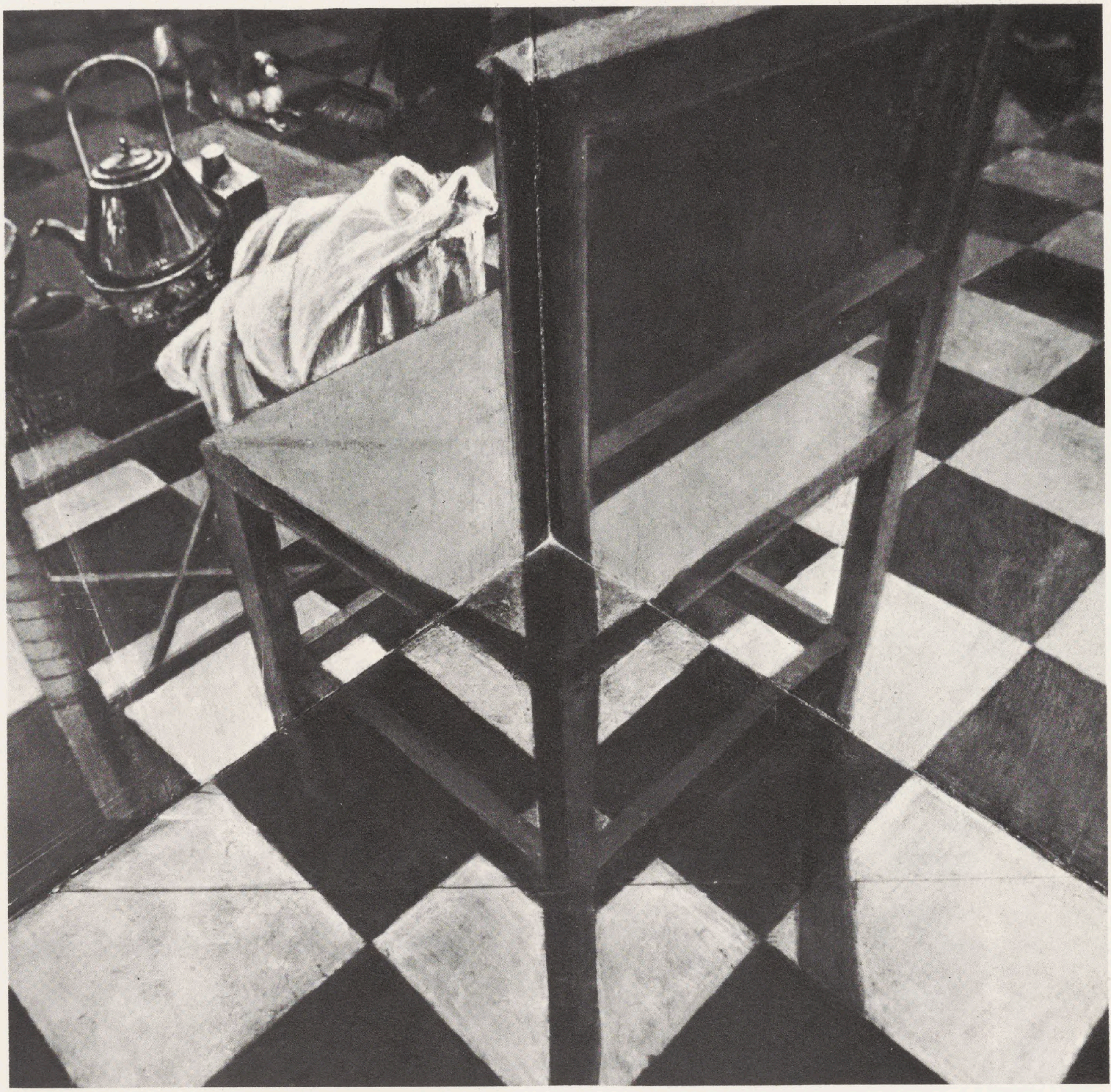

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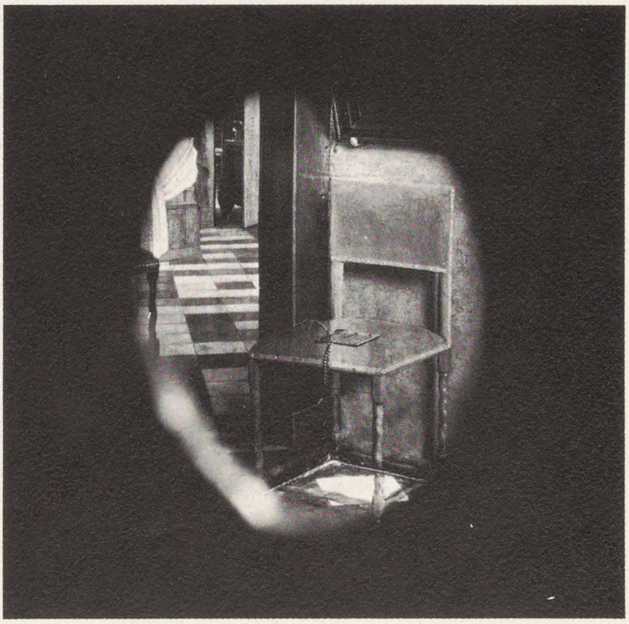

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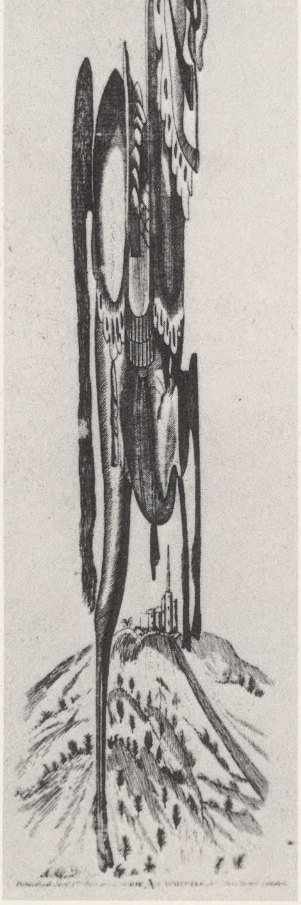

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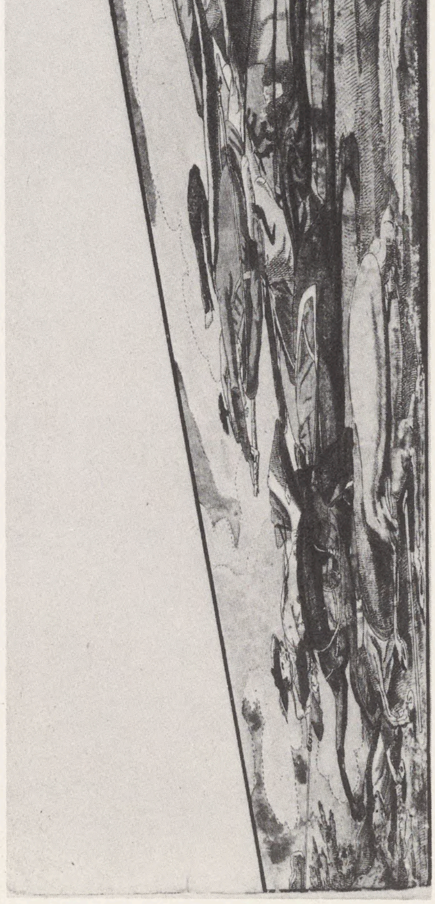

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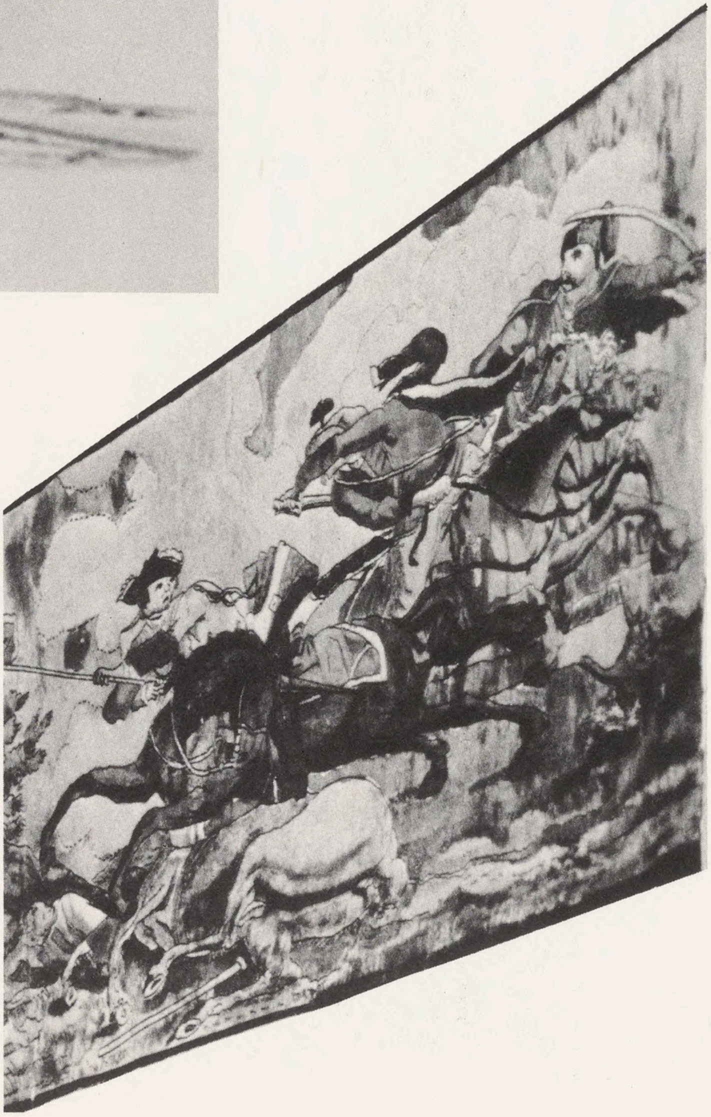

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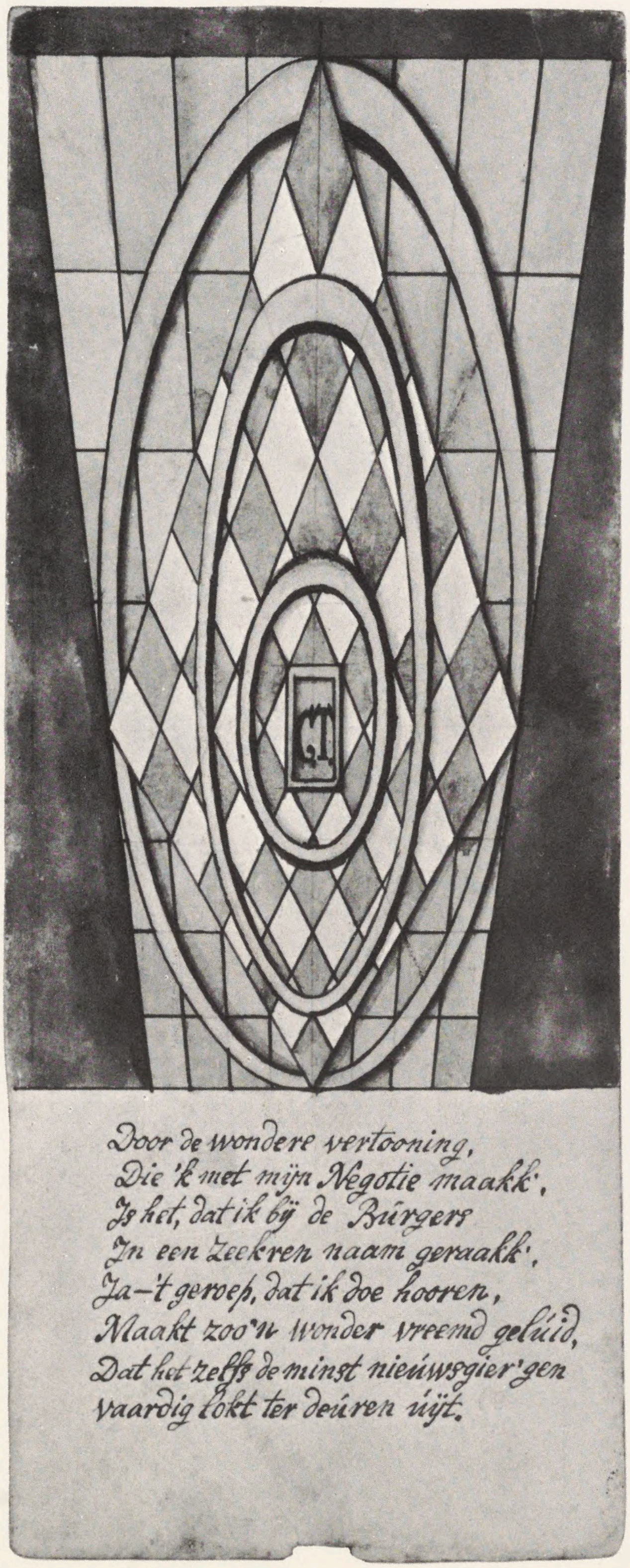
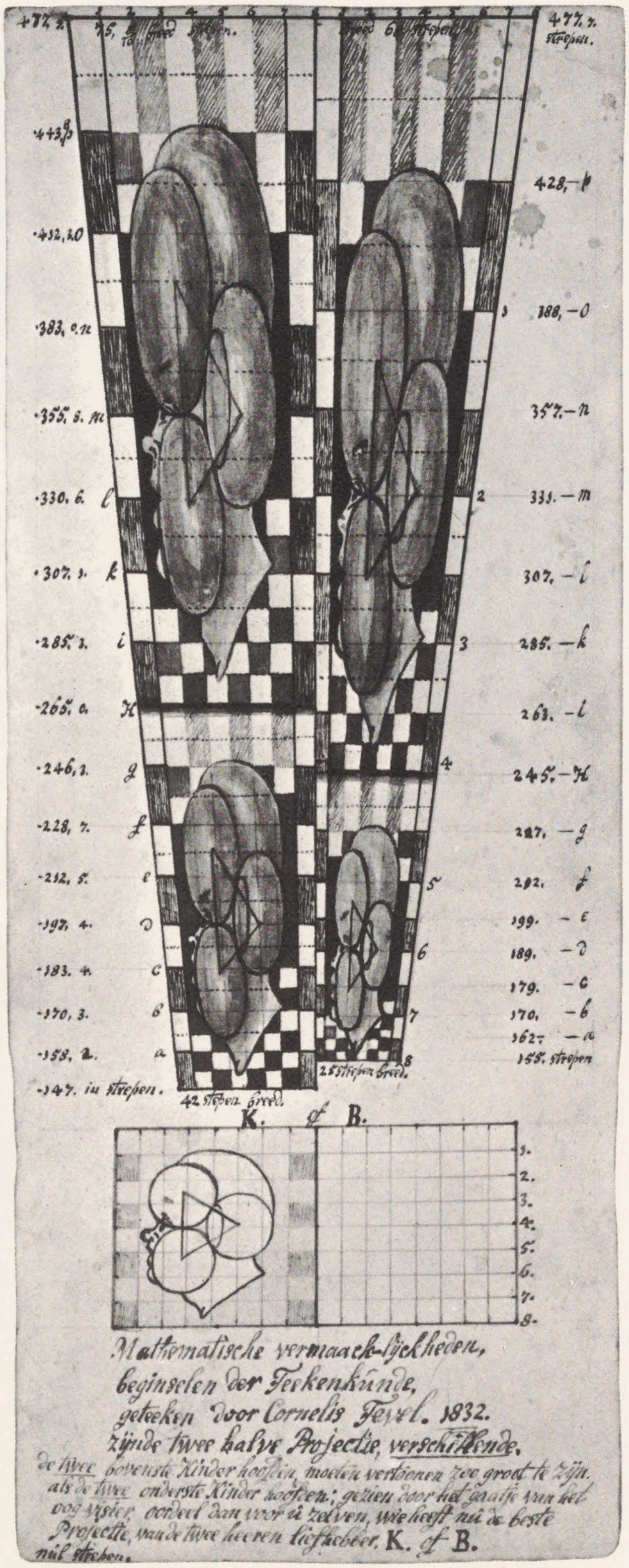


Door de wondere vertooning,
Die 'k met mijn Negotie maakk',
Is het, dat ik bij de Bürgers
In een zeekren naam geraakk',
Ja–'t geroep, dat ik doe hooren,
Maakt zoo'n wonder vreemd gelúid,
Dat het zelfs de minst nieúwsgier'gen
vaardig lokt ter deúren úijt.

49



Mathematische vermaack-lijckheden,
beginselen der Teckenkunde,
geteeken door Cornelis Tervel. 1832.
zijnde twee halve Projectie, verschillende.
de twee bovenste Kinder hoofden, moeten vertoonen zoo groot te zijn
als de twee onderste Kinder hoofden; gezien door het gaatje van het
oog vizier, oordeel dan voor u zelven, wie heeft nu de beste
Projectie, van de twee heeren liefhebber, K. of B.
nul strepen.

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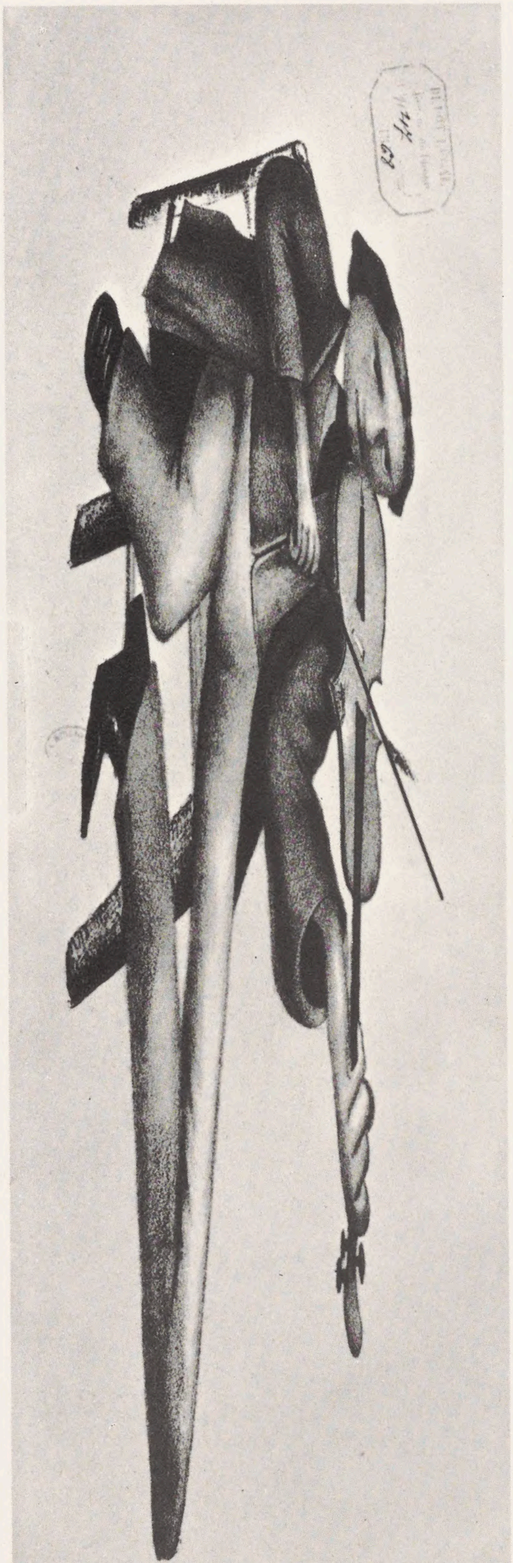

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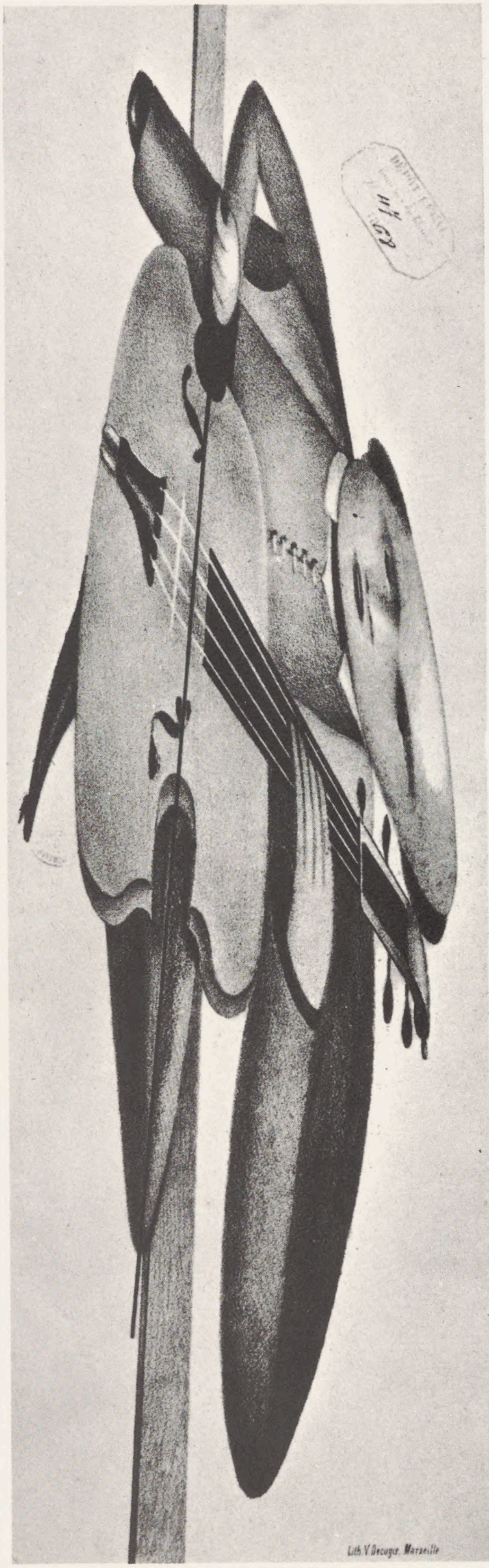

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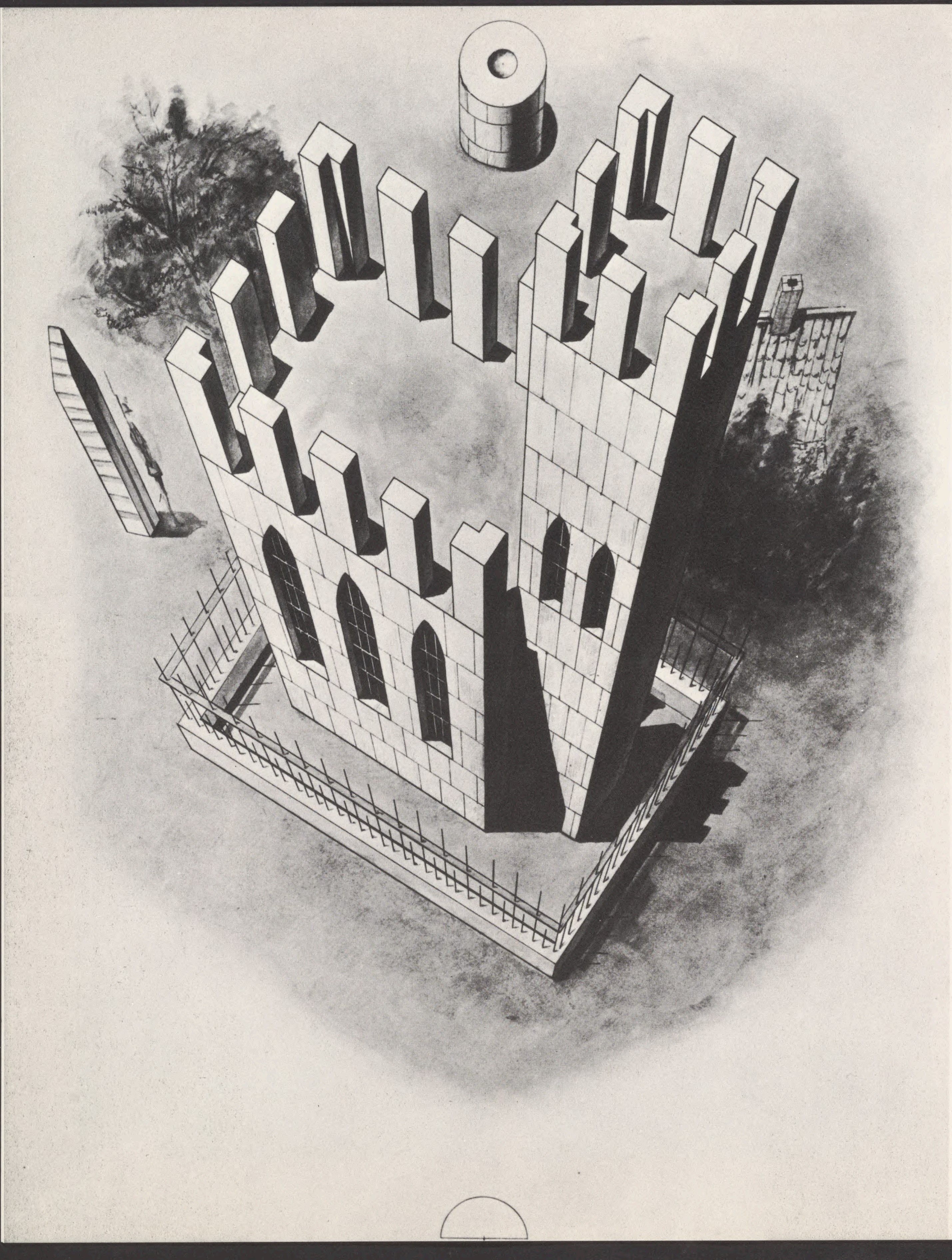

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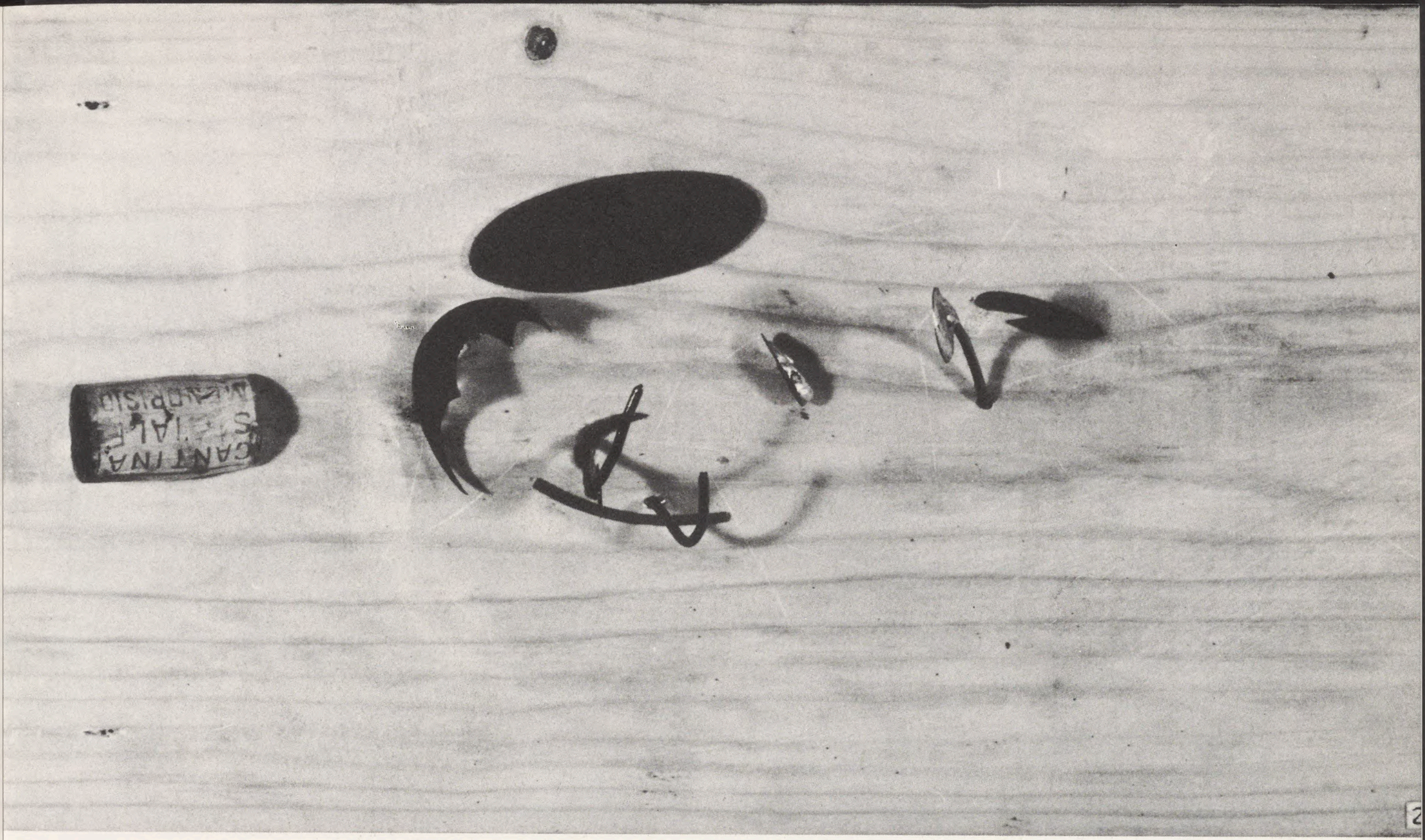

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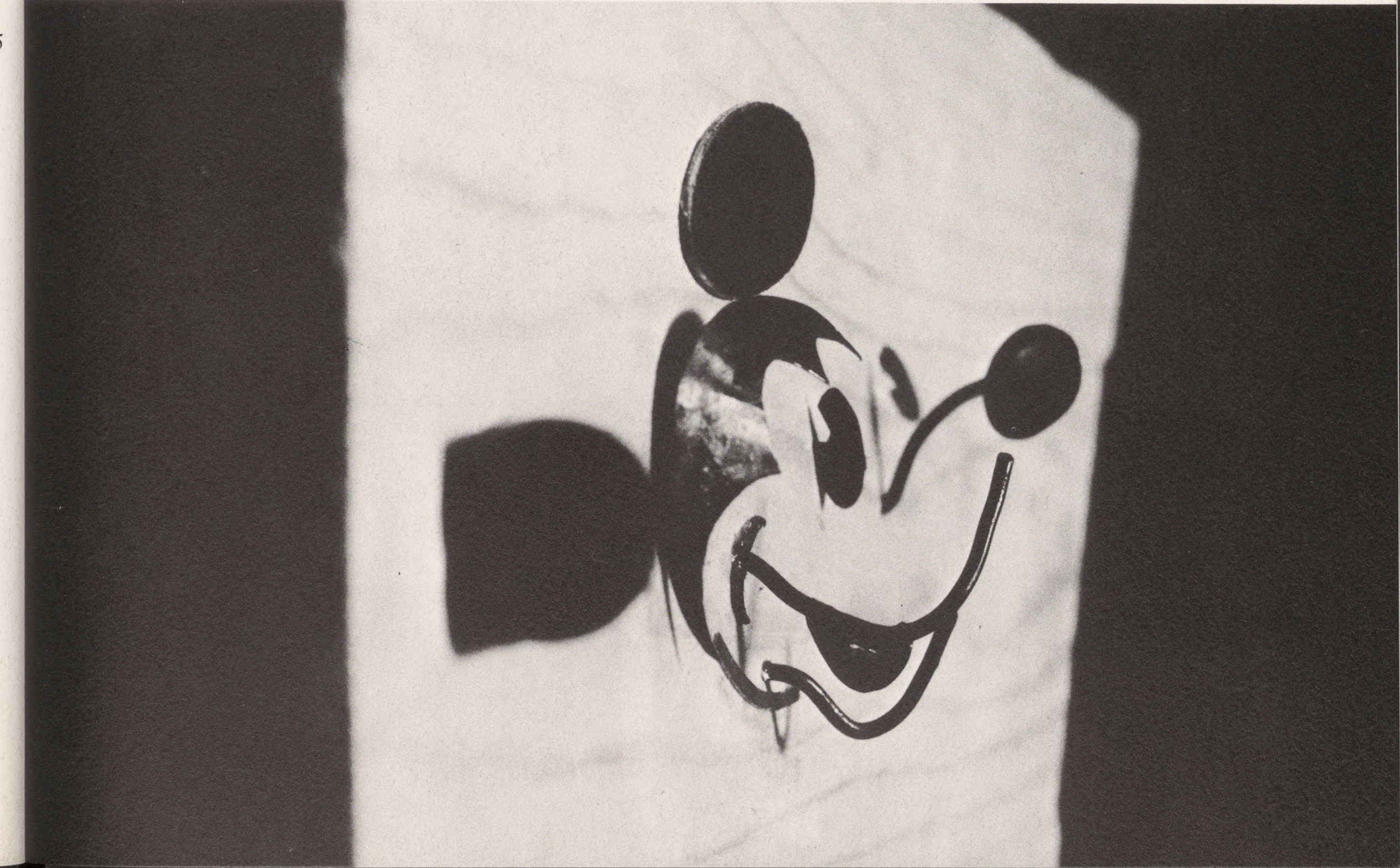

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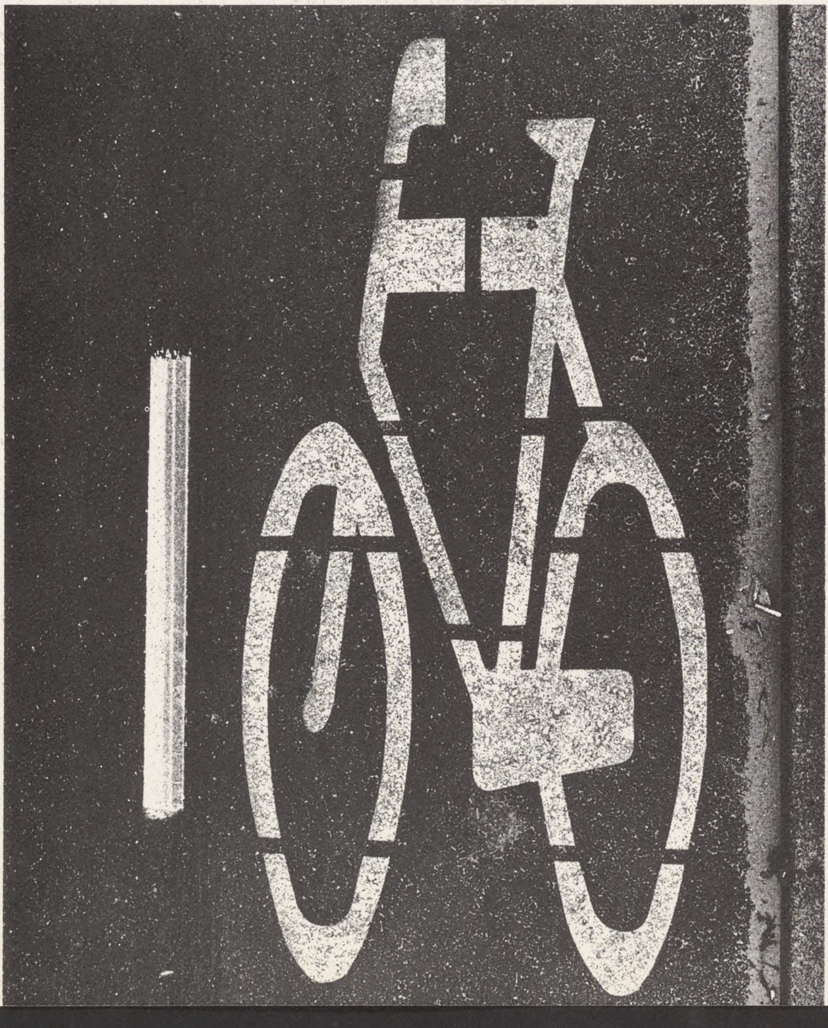

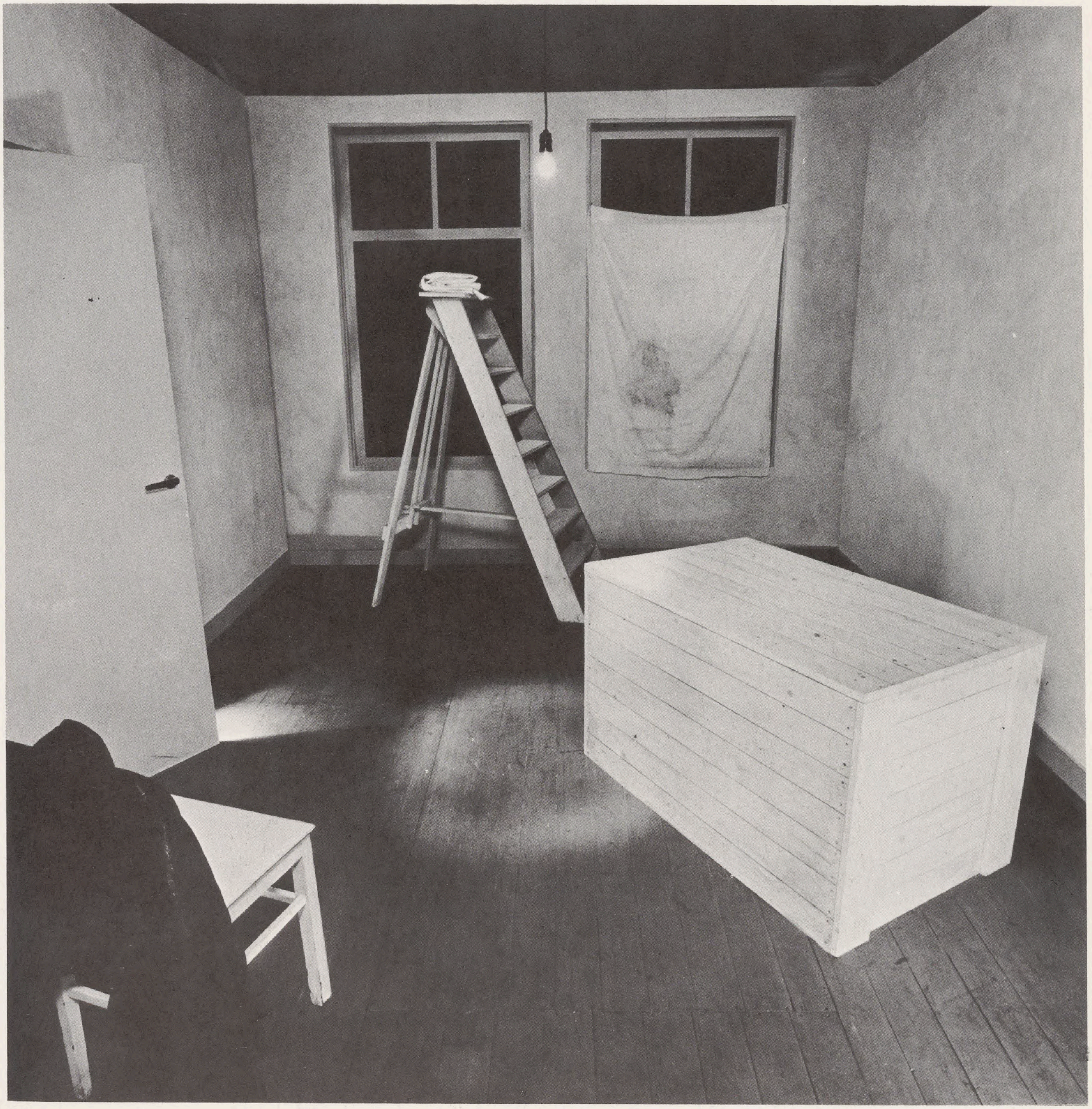

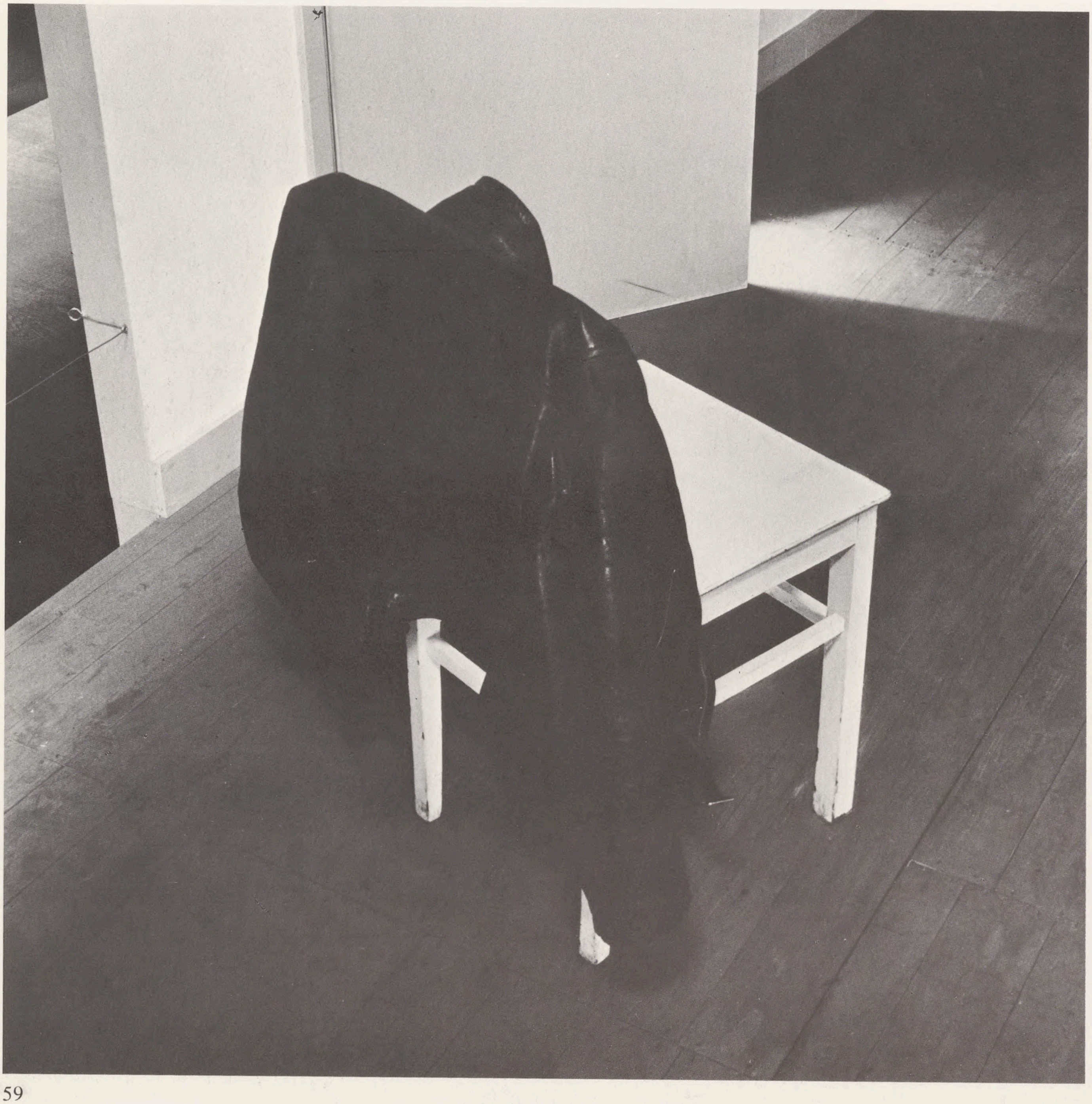

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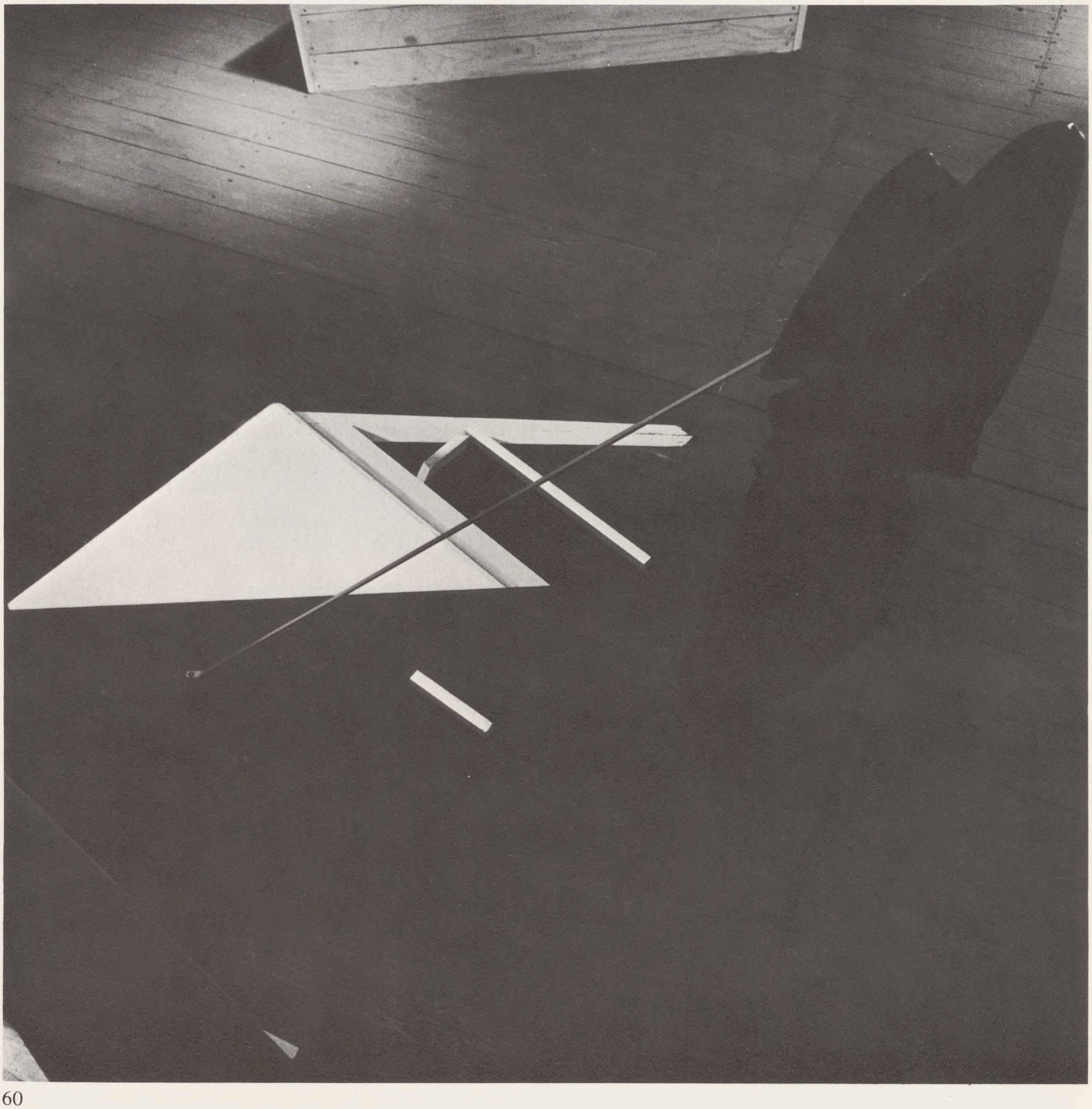

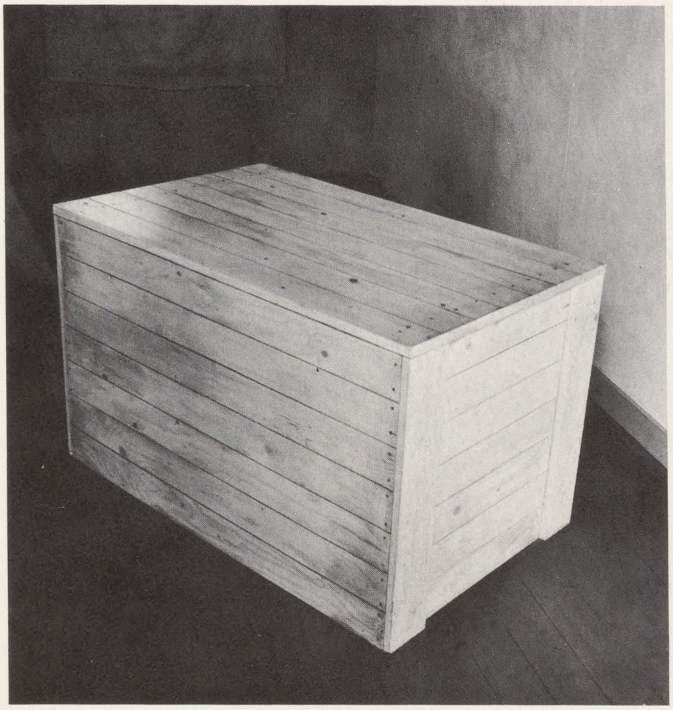

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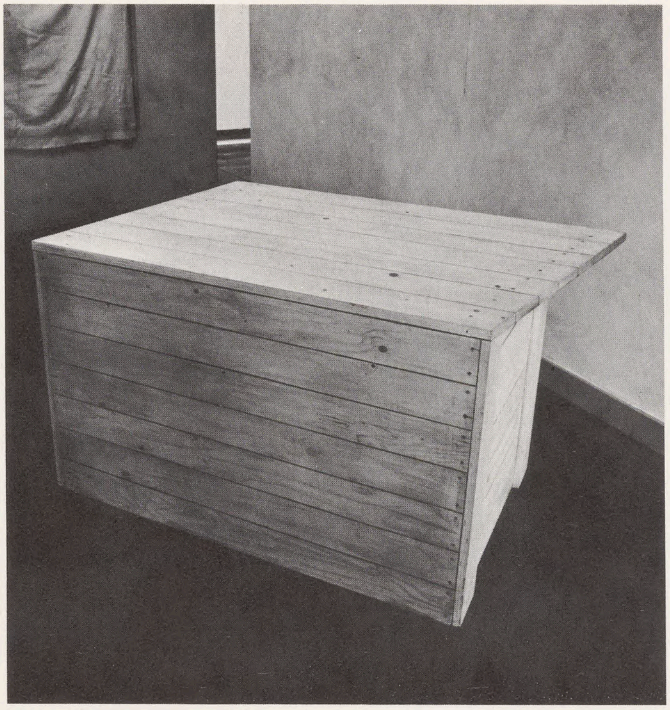

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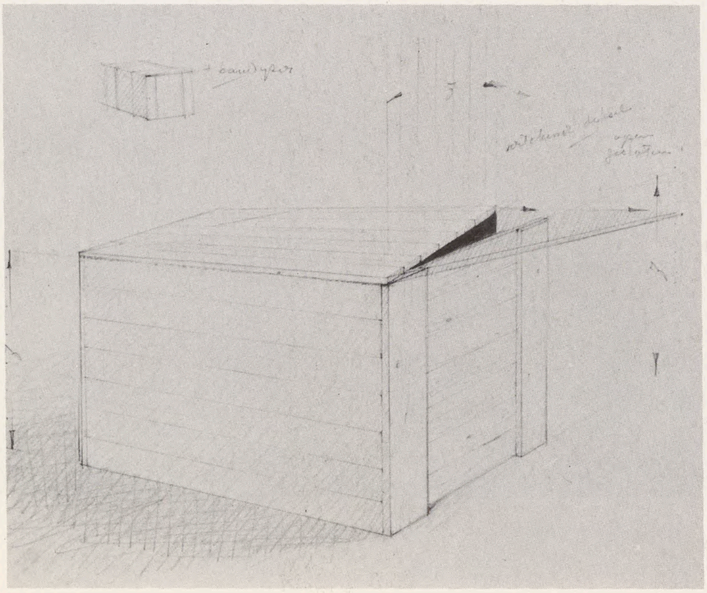

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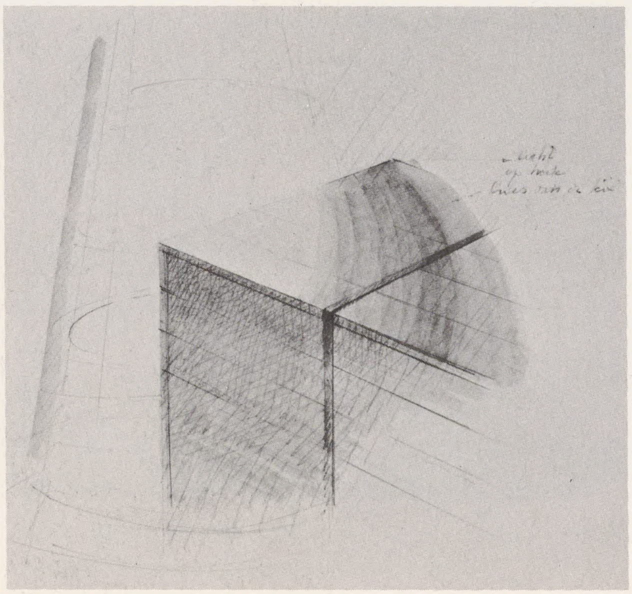

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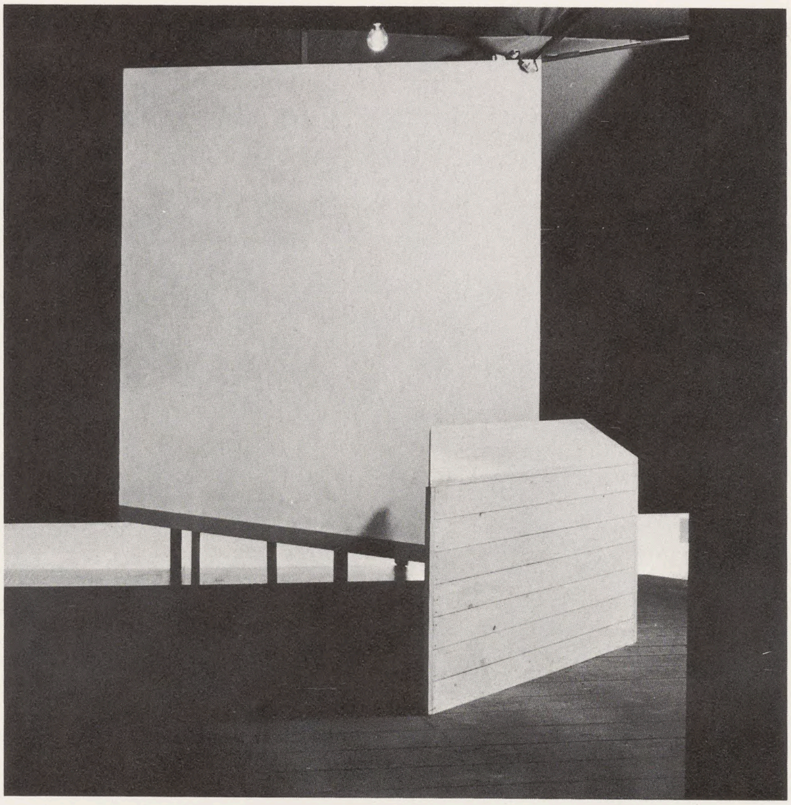

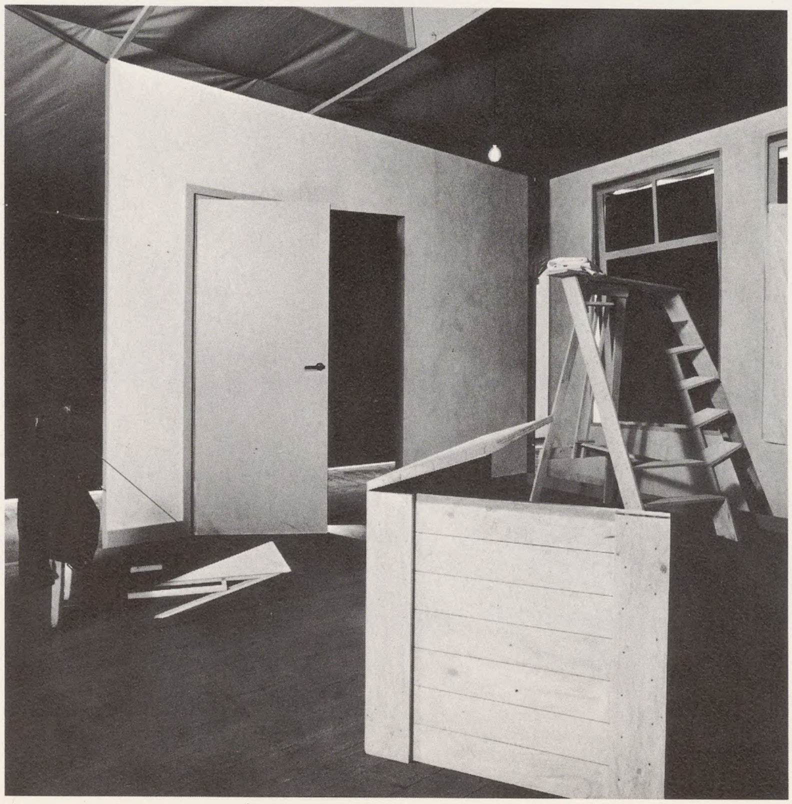

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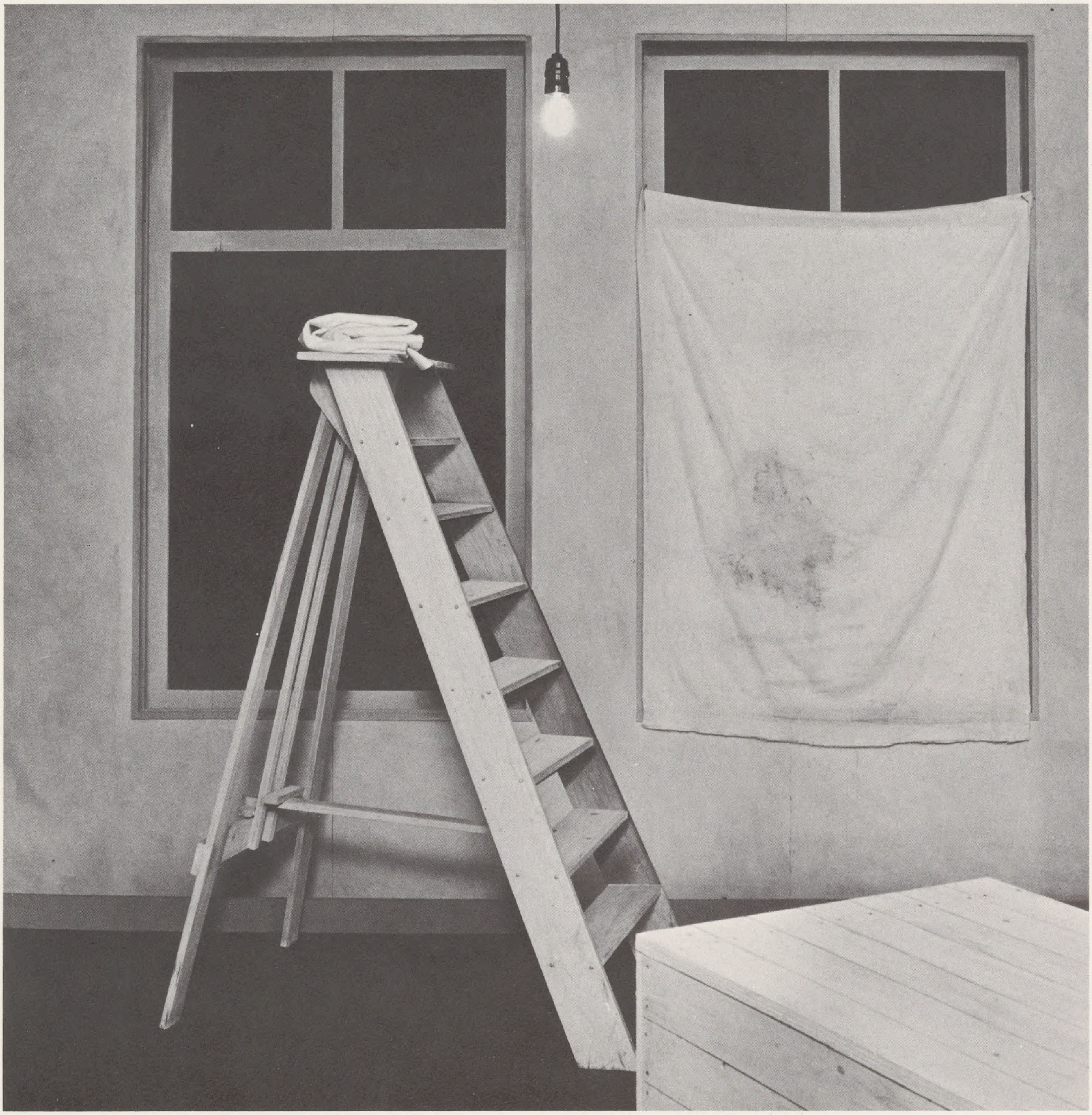

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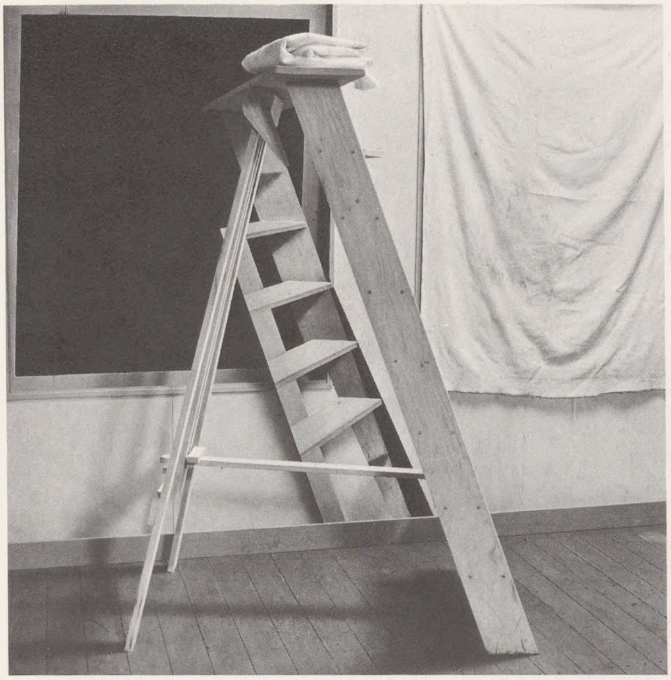

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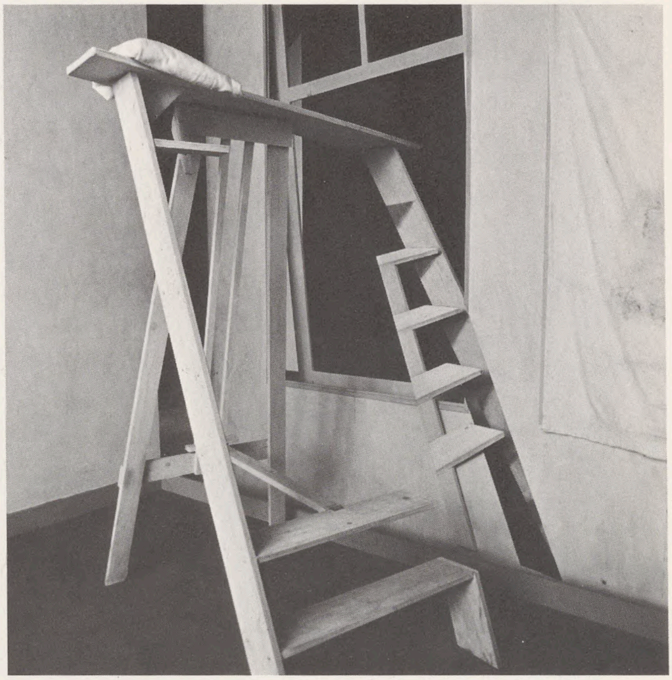

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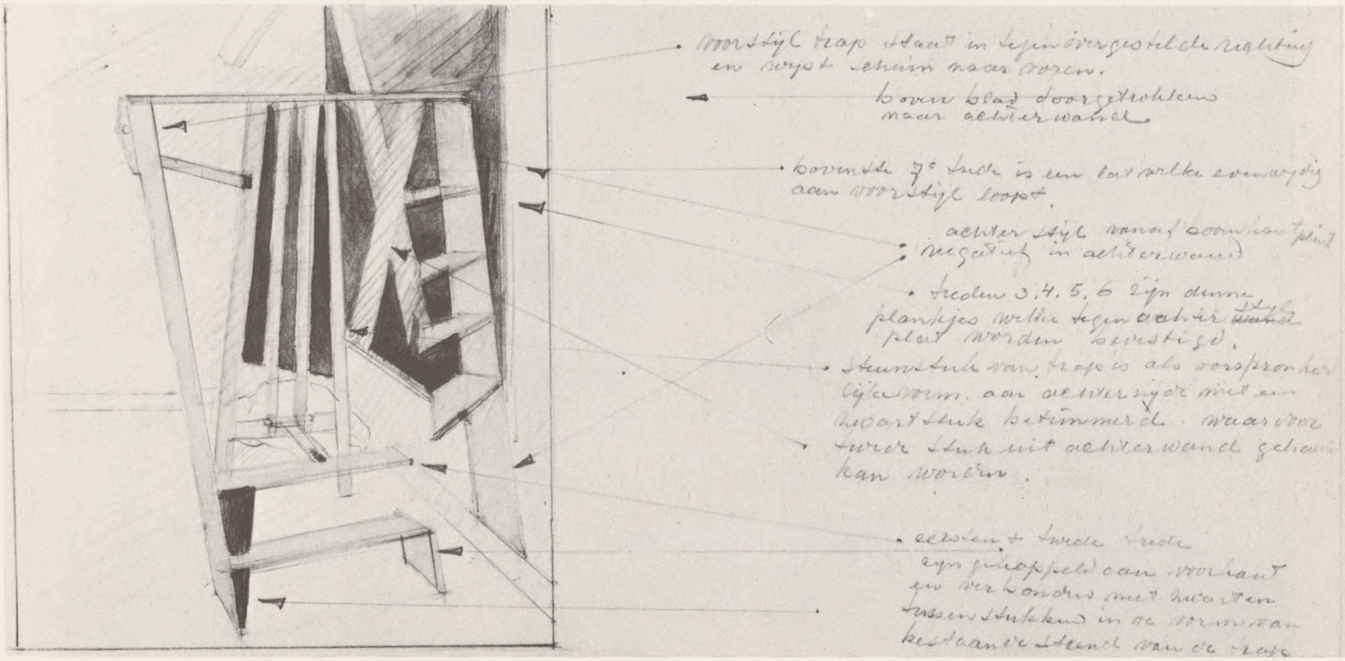


voorstijl trap staat in tegenovergestelde richting en wijst schuin naar voren.

bovenblad doorgetrokken naar achterwand

bovenste 7e trede is een lat welke evenwijdig aan voorstijl loopt.

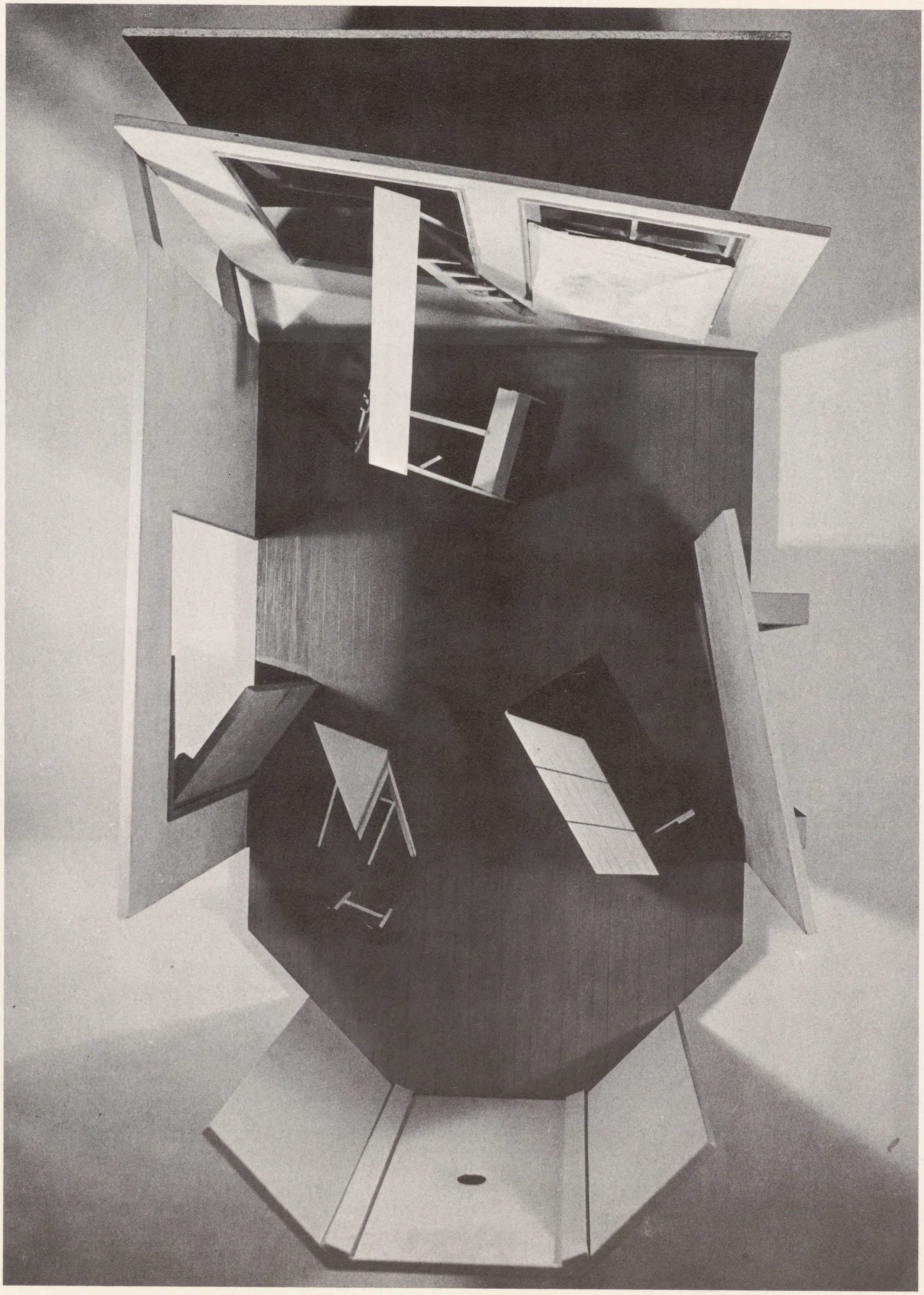
achterstijl vanaf bovenkant plint negatief in achterwand

treden 3, 4, 5, 6 zijn dunne plankjes welke tegen achter ~~wand~~ stijl plat worden bevestigd.

steunstuk van trap is als oorspronkelijke vorm. aan achterzijde met een zwartstuk betimmerd. waardoor tweede stuk uit achterwand gehaald kan worden.

eersten + tweede trede zijn gekoppeld aan voorkant en verbonden met zwarten tussenstukken in de vorm van bestaande steund van de trap

66 d



The Plates

1 William Scrots. *Portrait of Edward VI.* 1546. Oil on panel, 16¾ x 63″ (42.5 x 160 cm). National Portrait Gallery, London

Under the influence of Holbein, William Scrots used perspective means convincingly. There is a hollow in the frame through which one can view the work from the correct angle. The reproduction below shows the painting from this correct viewpoint, the one above as it appears viewed in the ordinary fashion.

2 Anonymous south German. Perspective anamorphosis: *Saint Peter and Saint Paul; Christ and the Angel in Gethsemane; Veronica's Veil; Madonna and Child; Saint Francis of Assisi Receiving the Stigmata.* c. 1550. Oil on panel, 21¼ x 33⅞″ (54 x 86 cm). Collection Bazzi, Milan

The themes, artfully camouflaged as landscape, must be viewed from the side. For this purpose there are small peepholes in the frame.

3 Details of Plate 2 showing the painting viewed from the side. a) *Saint Peter and Saint Paul;* b) *Christ and the Angel in Gethsemane* and *Veronica's Veil;* c) *Madonna and Child;* d) *Saint Francis of Assisi Receiving the Stigmata*

4 Hans Holbein the Younger. *The Ambassadors.* 1533. Oil on panel, 81½ x 82½″ (206 x 209.5 cm). National Gallery, London

When Holbein painted this lifesize double portrait of Jean de Dinteville, the French ambassador, and his friend, Bishop Georges de Selve, in England, he surrounded them with attributes that could be interpreted in various ways. The highly detailed still lifes in the center show the interests of both friends, yet at the same time refer to the transitory nature of human endeavors. The crucifix just barely visible beyond the drapery at upper left sustains this theme. The elongated form in the lower foreground pierces the painterly illusion and makes it relative. For when one looks at it from above at the right, it is seen to be a skull.

5 Piero della Francesca. *The Flagellation of Christ.* c. 1460. Tempera on panel, 22¾ x 32⅛″ (58.4 x 81.5 cm). Palazzo Ducale, Urbino

Mathematical precision helped create a bright and lucid space. The scale of the figures and the buildings was determined by perspective construction.

6 Conrad Witz. *Madonna and Saints in a Church.* 1442–43. Oil on panel, 25 x 17⅝″ (63.5 x 44.3 cm). Museo de Capodimonte, Naples

From the curves in the architecture we can assume that the artist used a convex mirror to enlarge his angle of vision.

7 Andrea Mantegna. Ceiling fresco in the Camera degli Sposi. 1473. Palazzo Ducale, Mantua

This perspective masterpiece embodies the highest development of Mantegna's illusionism. The ceiling painting was constructed according to the upward gaze of the viewer.

8–12 Baccio Pontelli. Intarsia paneling in the study of Federigo da Montefeltro. 1476. Palazzo Ducale, Urbino (details)

8 Small console table with musical instruments

9 The same detail as in Plate 8, but this time seen from an incorrect viewpoint

10 Still lifes on console table and in cabinets

11 The same detail as in Plate 10, seen from an incorrect viewpoint

12 Cabinets with books; portrait of Federigo da Montefeltro in a toga

13 Detail of ceiling fresco in Plate 14

If one compares the painting with the actual architecture below, its distortion becomes evident.

14 Andrea Pozzo. *Entrance of Saint Ignatius into Paradise.* 1691–94. Fresco. S. Ignazio, Rome

The ceiling of the nave of this large church is heightened by a colossal painting that seems to extend the architecture dizzyingly upward. The fresco is filled with allegorical figures. A marble slab in the floor indicates the place where one must stand in order to experience the illusion best. This fresco comes at the end of the long development of *quadratura* painting (illusionistic painting of architectural perspectives), and is one of the most powerful examples of its kind.

15 Andrea Pozzo. Corridor to the apartments of Saint Ignatius. Begun 1682. Fresco. Casa Professa, Il Gesù, Rome

When one enters the corridor, the painting on the wall looks chaotic. But when one reaches the center of the passage, the bizarre forms arrange themselves into an archway that entirely ignores the actual barrel vault and flat walls. The transverse wall at the end of the corridor is punctuated by a false altar before which an angel playing a musical instrument seems to sit. The effect of the distortion is particularly convincing in the beamed ceiling Seen from the proper viewpoint, the barrel vault seems to be an impossibility. When one moves on, nothing remains of the elaborate arches and figures but abstract configurations (see Plates 16 and 17).

16, 17 Details from the ceiling of the corridor to the apartments of Saint Ignatius in Rome (see Plate 15). Plate 16 shows the painting from the correct viewpoint; Plate 17 from an incorrect one

18, 19 Donato Bramante. False choir in stucco. 1483-86. S. Maria presso S. Satiro, Milan

Since the street behind the church made it impossible to build a choir, Bramante was forced—if he wanted to retain harmonious proportions—to find a special solution. An unsuspecting visitor to the church does not notice until he stands very close to it that the whole choir is nothing but a relief four feet deep. Yet a glance into the righthand transept serves to make one realize the only apparent similarity of the actual space and the fictive choir (Plate 18).

20 Francesco Borromini. Colonnade in the Palazzo Spada, Rome. c. 1635

Here Borromini created a colonnade for his patron that at first glance seems much deeper than it really is, 28′2″ (8.58 m). This marginal architectural activity borders on stage illusion.

21 Andrea Palladio (?), Vincenzo Scamozzi. Perspective stage setting. c. 1581-85. Teatro Olimpico. Vicenza

The upward slant of the stage and the diminution of the proportions in the background create—within a confined space—the impression of a long street.

22 Emmanuel Maignan. *Perspectiva horaria*.... (Rome, 1648), p. 438—an engraving that explains how Maignan executed his fresco *Saint Francis of Paola* (see Plates 23-26)

All points on the original drawing "a-b-e-f," which is attached to the wall with hinges, are, with the help of threads, projected from viewpoint "N" on the wall with a movable plumb on a string F-H.

23-26 Emmanuel Maignan. *Saint Francis of Paola.* 1642. Fresco, 11½ x 65½′ (3.5 x 20 m). Monastery of SS. Trinità dei Monti, Rome

The sole surviving large-scale perspective anamorphosis is in the monastery of the Minims in Rome. From one end of the corridor, everything seems in proper proportion (Plate 24), but the nearer one approaches, the more incomprehensible the forms become (Plate 23). Between the folds of Saint Francis's cowl there appears a view of the Straits of Messina, the scene of one of his miracles (Plate 26).

27 Anonymous French. *Physics Hall.* c. 1700. Engraving (unfinished)

In the foreground various anamorphoses are pictured. They belong to the realm of the natural sciences.

28 Anonymous French. *The Académie des Sciences et des Beaux-Arts.* c. 1700. Oil on canvas, 18⅞ x 37⅜″ (48 x 95 cm). Collection Monnier, Paris

This canvas portrays the art of painting as a science among sciences. Anamorphosis and perspective, which both require a "scientific" approach, occupy a prominent position in the foreground.

29 Henry Kettle. Pyramid anamorphosis: *Four Male Portraits Become One.* c. 1770. Oil on panel, 8¾ x 8¾″ (22.5 x 22.5 cm). Rijksmuseum voor de Geschiedenis der Natuurwetenschappen, Leiden

Henry Kettle probably studied the work of DuBreuil with great care (cf. Fig. 6). The four reflecting surfaces must each encompass one portion of the four heads. He also signed this small painting: "H. Kettle pinxt."

30, 31 Anonymous Netherlandish. Cone anamorphoses: *Clover Leaf.* Eighteenth century. Etchings, colored, 10½ x 10½″ (26.5 x 26.5 cm). Private collection, Amsterdam

32 Henry Kettle. Cone anamorphosis: *A Girl with a Bird on a String.* c. 1770. Oil on panel, 27⅛ x 26¾″ (69 x 68 cm). Private collection, Amsterdam

The construction of a painting for the reflecting cone was explained by Vaulezard, Niceron, and DuBreuil (Fig. 5). Yet, so far as can be determined, no example survives from the seventeenth century. The particular properties of the cone anamorphosis are fascinatingly expressed in this example. This original composition is turned completely inside out. The girl's face is blurred on the outer rim. In the painting the blue sky is encircled by the girl's body, yet in the reflection it is the sky that encircles her. The girl's arms in the painting dangle inward like tentacles, and the string attached to the bird, which looks as though it were being captured from the sky, describes a protracted curve.

33, 34 Pieter Schenk (publisher). Cone anamorphoses: *Two Men Boxing; Two Seashells.* Second half of the eighteenth century. Etchings, colored, 8¾ x 11¼″ (22.5 x 28.5 cm). Private collection, Amsterdam

In this series particular attention was paid to the graphic effect of the reconstituted images. In *Two Seashells,* the curving action of the cone permits the straight lines to curve. The care with which the color combinations were chosen makes this one of the most beautiful series from the eighteenth century. With Series One there was a notation that more of these pictures, and mirrors, could be purchased in the shop of Schenk, "N. Vischers Atlas," in Warmoes Street in Amsterdam.

35 Anonymous. Cone anamorphosis: *Skull.* Eighteenth century. Watercolor, 12 x 12″ (30.5 x 30.5 cm). Private collection, Amsterdam

Without the aid of a reflecting cone, the image is meaningless (see Plate 36).

36 Plate 35 seen in a reflecting cone. The anamorphosis mirrors the relativity of the world

37, 38 Anonymous north Netherlandish. Perspective cabinet: *View of a Pillared Hall.* 1663. Pentagonal base, 16⅜ x 13½ x 11¼″ (41.9 x 34.5 x 28.6 cm). Detroit Institute of Arts

The artist (possibly Samuel Van Hoogstraten) used not only the four perpendicular sides but also the ceiling and the floor. He had no difficulty in showing the soaring pillars running over three sides. The plate in the still life in the foreground is certainly a masterpiece of the art of projection (Plate 38). The dog is in a position to threaten the cat, although they are situated in different dimensions.

39, 40 Anonymous, School of Delft. Perspective cabinet. c. 1670. Triangular base, 33⅛ x 32¼ x 23⅝″ (84 x 82 x 60 cm). Bredius Museum, The Hague

The two side walls of this "Perspectyfkas" create a right angle together. If one does not look at the cabinet from the proper viewpoint, many distortions occur. Originally there must have been another wall on the front side, with a peephole. If one finds the right viewpoint, all the surfaces take their place in one perspective system. This is most clearly seen in the raftered ceiling and in the chair in the foreground. The illusion of space is stronger here than in an ordinary painting, the eye can swoop and dart about. The painter took advantage of this by painting vistas on both sides. The tile floor and the ceiling also draw the eye into depth.

41–44 Samuel van Hoogstraten. Perspective cabinet: *Dutch Interior.* c. 1655–60. Rectangular base, 22⅞ x 34⅝ x 25″ (58 x 88 x 63.5 cm). National Gallery, London

The perspective rendering of a room with many outward vistas is projected on five painted surfaces (Plate 41). Peepholes have been bored in the side walls. If one looks through either of these holes, one receives the impression of a continuous space. Because the viewing angle from which one observes the surfaces is differential, Van Hoogstraten occasionally used severe anamorphic distortions. Seen through the peephole, the proportions once more appear normal; also, the spatial illusion is greater in these instances because the objects negate the flatness of the surface on which they are painted.

45 Anonymous. Perspective anamorphosis: *Horse.* 1802. Etching, 19¼ x 5⅛″ (49 x 13 cm). Collection Howard L. Hartman, New York

This anamorphic representation was published on January 1, 1802, by Lauri A. Whittle, 53 Fleet Street, London.

46 Anonymous. Perspective anamorphosis: *Cavalry Battle.* Late eighteenth century. Etching, colored, 3⅞ x 13⅜″ (10 x 34 cm). Private collection, Amsterdam

47 Plate 45 seen from the correct viewpoint

48 Plate 46 seen from the correct viewpoint

49, 50 Cornelis Tevel. Perspective anamorphoses: *Boxes with Circular Lids* and *Children's Heads.* 1832. Watercolor, 18⅞ x 7¼″ (48 x 18.5 cm). Private collection, Amsterdam

At the beginning of the nineteenth century, interest in anamorphoses reawoke. In 1834 J. de Kanter wrote a small book titled *Gezigtkundige Misvorming en Herstelling van figuren, beelden en tekeningen (Optical Distortions and the Reconstruction of Shapes, Forms, and Drawings).* Using De Kanter's method, Cornelis Tevel created a series of didactic anamorphoses on cardboard.

51, 52 Anonymous (edited by V. Décugis). Perspective anamorphoses: *A Violinist; A Cellist.* 1868. Lithographs, colored

In this series of lithographs the perspective type of anamorphosis was brought back to life.

53 J. W. Schwenck. Perspective anamorphosis: *A Castle.* c. 1870. Pen and wash drawing, 17¾ x 22″ (45 x 56 cm). Prentenkabinet der Rijksuniversiteit, Leiden

The unique characteristics of perspective anamorphosis are used here in an unusual way. Seen from the correct angle, the entire drawing seems to leave the paper and stand out three-dimensionally.

54 Markus Raetz. Perspective anamorphosis: *Portrait of Mickey Mouse.* 1974. Wood panel, 7 x 18″ (18 x 46 cm). Collection Toni Gerber, Bern

55 Plate 54 seen from the correct viewpoint

56, 57 Nowadays anamorphoses still play a practical role. In traffic the Dutch are warned to drive thirty miles per hour, to stay in lane, and to use the bicycle path. To attract their attention, the relevant signs are painted in distorted fashion on the road. Seen from a distance, the signs, numbers, arrows, and bicycles regain their normal proportions.

58–66 Jan Beutener. *The Room.* 1975. Seen through a peephole the illusion of a normal scene is complete (Plate 58). Plate 59 shows a detail of the chair and the jacket as seen through the peephole.

Spectators can walk around the perimeter of the room. In Plate 60 one can see what the chair really looks like: most of it is a painted triangle and a few small sticks of wood on the floor. The jacket, which seemed to be draped over the back of the chair, is really suspended on sharply angled wires.

61 (a-d)–63: at top left, the box is shown as it would be seen through the peephole. The other photographs on these pages show the box and other parts of the room as seen from the perimeter. The sketches are working drawings made by Jan Beutener.

In Plate 64 the ladder is shown as seen through the peephole and in Plate 65 (a-c), again, distortion and reality are revealed in sketches of the ladder. Plate 66 shows a bird's-eye view of the room.

67, 68 Plates 69 and 70 viewed correctly in a reflecting cylinder

69 Anonymous north Netherlandish. Cylinder anamorphosis: *Crucifixion with Mary, John, and an Angel.* c. 1640. Oil on panel, 19⅝ x 24⅜″ (50 x 62 cm). Private collection, Amsterdam

In the northern Netherlands, there were, as we have learned from the perspective cabinets, many painters who were particularly interested in optical phenomena—clearly a congenial atmosphere in which anamorphoses could originate.

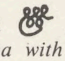
70 Henry Kettle. Cylinder anamorphosis: *Sleeping Venus Uncovered by Amor.* c. 1770. Oil on panel, 14⅝ x 18⅞″ (37 x 48 cm). Private collection, Amsterdam

In seventeenth-century French painting this erotic motif is frequent. This kind of theme lends itself naturally to concealed portrayal.

71 Anonymous Chinese. Cylinder anamorphosis: *Couple Making Love.* c. 1573–1619. Paint on silk, 12 x 14″ (30.5 x 35.5 cm). Collection Jean Vlug, Brussels

It is still not certain whether the cylinder anamorphosis was brought to China by the Jesuits or whether the Chinese discovered it for themselves. The theme seems to contradict the first possibility.

72 Anonymous Indian. Cylinder anamorphosis: *Peacock.* Nineteenth century (?). Paint on paper, 8⅝ x 11¼″ (22 x 28.5 cm). Private collection, Amsterdam

73 Monogramist , Augsburg. Cylinder anamorphosis: *Pan Entices Diana with a Hank of Wool.* Second half of the eighteenth century. Etching, colored, diameter 16½″ (42 cm). Private collection, Amsterdam

Carraci's compositions set the standard for academic painting. His famous ceiling painting in the Palazzo Farnese in Rome served as model for this anamorphosis. The theme is taken from Virgil's *Georgics* (III, 393), and the relevant lines have been added to the picture.

74 Anonymous. Cylinder anamorphosis: *A Dog.* Eighteenth century. Colored etching, 8¾ x 11⅛″ (22.3 x 28.3 cm). Private collection, Amsterdam

75, 76 Anonymous. Cylinder anamorphoses: *Male Head; Two Men Fighting.* Eighteenth century. Etchings, colored, 8¾ x 11⅛″ (22.3 x 28.3 cm). Private collection, Amsterdam

77 Anonymous French. Cylinder anamorphosis: *A Ballerina.* Nineteenth century. Lithograph, 6½ x 7⅞″ (16.5 x 20 cm). Private collection, Amsterdam

78 Anonymous. Cylinder anamorphosis: *Harlequin.* Eighteenth century. Lithograph, 6½ x 7⅞″ (16.5 x 20 cm). Private collection, Amsterdam

79, 80 Anonymous. Cylinder anamorphoses: *An Angel with a Chalice and a Cross Appears to Christ; Crucifixion.* Eighteenth century. Gouache, 15 x 18½″ (38 x 47 cm). Private collection, Milan

81 Anonymous. Cylinder anamorphosis: *Vanitas Still Life.* Eighteenth century. Gouache, 14⅞ x 18″ (37.6 x 45.6 cm). Collection Apolloni, Rome

The fact that the world mirrored in the cylinder is an illusion underscores the theme embodied by symbols of the transitory nature of life.

82 Anonymous. Cylinder anamorphosis: *Acrobat.* Late eighteenth century. Watercolor, 11¼ x 16⅞″ (28.5 x 43 cm). Private collection, Amsterdam

83 Anonymous Netherlandish. Cylinder anamorphosis: *A Three-*

Master. Eighteenth century. Colored etching, 9⅝ x 14⅝″ (24.4 x 37 cm). Private collection, Amsterdam

84 Elias Bäck. Cylinder anamorphosis: *Without a Horse* ("Ohne Pferd"). Eighteenth century. Etching, colored, 7 x 8¼″ (17.5 x 21 cm). Private collection, Amsterdam

85 Anonymous Japanese. "Saya-e" (anamorphic picture). *Benkei on the Bridge (?).* c. 1900. Book illustration

86 Salvador Dali. Cylinder anamorphosis: *The Clown.* n.d. Colored lithograph, 34⅝ x 25¼″ (88 x 64 cm). Collection Howard L. Hartman, New York

87 Anonymous Dutch. Cylinder anamorphosis: *A Woman Shows Herself from an Unusual Angle.* Late eighteenth century. Pen and wash drawing. Collection Dreyfus, Basel

88 Anonymous. Cylinder anamorphosis: *Woman with a Tambourine.* Late eighteenth century. Watercolor, 11¼ x 16⅞″ (28.5 x 43 cm). Private collection, Amsterdam

89 Anonymous. Cylinder anamorphosis: *Christ in His Tomb.* Eighteenth century. Gouache, 15 x 18½″ (38 x 47 cm). Private collection, Milan

90 Anonymous south Netherlandish. Cylinder anamorphosis: *Raising of the Cross.* First half of the seventeenth century. Oil on canvas, 24⅜ x 30¾″ (62 x 78 cm). Collection Rheims, Paris

This artist has used a portion of the famous Rubens painting (1610-11) in the Antwerp Cathedral and has added two angels.

91 James Steere (?). Cylinder anamorphosis: *H.M.S. Victory;* in the circle: *Victory.* After 1786. Oil on panel, 17⅜ x 20⅞″ (44 x 53 cm). Science Museum, London

Catalogue

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Cone anamorphoses. Etchings, colored, diameter 10¾″ (27.5 cm)
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Private collection, Amsterdam

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Private collection, Amsterdam

Anonymous (late 18th century)
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Private collection, Amsterdam

Elias Bäck (18th century)
49 *Without a Horse* ("Ohne Pfert")
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Private collection, Amsterdam

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Collection Dreyfus, Basel

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51 *Dragonfly*
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52 *Cavalry Battle* (Plate 46)
Perspective anamorphosis. Etching, colored, 3⅞ x 11⅜″ (10 x 34 cm)
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58 *Dancing Peasants.* 1832
Perspective anamorphoses from a series of perspective studies following the method of J. de Kanter. Drawings, 18⅞ x 7¼″ (48 x 18.5 cm)
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69 Athanasius Kircher, *Ars Magna Lucis et Umbrae*, Rome, 1671
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70 Henry Hondius, *Grondige Onderrichtinge in de Optica ofte Perspective Konste*, Amsterdam, 1730
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Jan Beutener (b.1932)
71 *The Room.* 1975 (Plates 58–66)
Subsidized by the Dutch Ministry of Culture

Frank Gribling (b.1933)
72 *Negative Volume of Solid Cube.* 1975
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Hans Hamngren (b.1934)
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Markus Raetz (b.1941)
74 *Profile.* 1974
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Markus Raetz
75 *Portrait of Annemiek Henneman*
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Collection Annemiek Henneman, Amsterdam

Markus Raetz
76 *Portrait of Mickey Mouse*
Two pieces of cardboard, 7⅛ x 9″ (18 x 23 cm)
Collection Toni Gerber, Bern

Markus Raetz
77 *Portrait of Mickey Mouse on the Ground and Wall*
Collection the artist

Markus Raetz
78 *Portrait of Mickey Mouse.* 1974 (Plate 54)
Perspective anamorphosis. Wood panel, 7 x 18″ (18 x 46 cm)
Collection Toni Gerber, Bern

Markus Raetz
79 Sketch for *Profile*
Drawing, 17½ x 6¾″ (44.5 x 17 cm)
Collection Toni Gerber, Bern

Markus Raetz
80 Five sketches for *Portrait of Mickey Mouse*
Drawing, 12⅝ x 16½″ (32 x 42 cm)
Collection Toni Gerber, Bern

Salvador Dali (b.1904)
81 *The Clown* (Plate 86)
Cylinder anamorphosis. Colored lithograph, 34⅝ x 25¼″ (88 x 64 cm)
Collection Howard L. Hartman, New York

82 *Men and Women*
Cylinder anamorphosis. Colored lithograph, 34½ x 25¼″ (87.5 x 64 cm)
Collection Howard L. Hartman, New York

Hans Holbein the Younger (1497/98–1543)
83 *The Ambassadors.* 1533 (Plate 4)
Oil on panel, 81½ x 82½″ (206 x 209.5 cm)
National Gallery, London
Photograph

Emmanuel Maignan (1601–76)
84 *Saint Francis of Paola.* 1642 (Plates 23–26)
Fresco, 11½ x 65½′ (3.5 x 20 m)
Monastery of SS. Trinità dei Monti, Rome
Copy painted on canvas

Samuel van Hoogstraten (1627–78)
85 *Dutch Interior.* c. 1655–60 (Plates 41–44)
Perspective cabinet. Rectangular base, 22⅞ x 34⅝ x 25″ (58 x 88 x 63.5 cm)
National Gallery, London
Copy

Anonymous, School of Delft (c. 1670)
86 *Interior of a Dutch Dwelling* (Plates 39, 40)
Perspective cabinet. Triangular base, 33⅛ x 32¼ x 23⅝″ (84 x 82 x 60 cm)
Bredius Museum, The Hague
Enlarged copy

William Scrots (active 1537–53)
87 *Portrait of Edward VI.* 1546 (Plate 1)
Perspective anamorphosis. Oil on panel, 16¾ x 63″ (42.5 x 160 cm)
National Portrait Gallery, London
Copy on panel

Jean-François Niceron (1613–46)
88 *Portrait of Louis XIII,* after Simon Vouet (?). c. 1635
Cylinder anamorphosis. Oil on canvas, 19⅝ x 26⅜″ (50 x 67 cm)
Galleria Nazionale d'Arte Antica, Rome
Copy on panel

James Steere (active second half of 18th century) ?
89 *H.M.S. Victory;* in the circle: *Victory.* After 1786 (Plate 91)

Cylinder anamorphosis, after a painting made in 1786 of the ship's model. Oil on panel, 17⅜ x 20⅞" (44 x 53 cm)
Science Museum, London

Anonymous south Netherlandish (first half of 17th century)
90 *Raising of the Cross*, after Peter Paul Rubens (Plate 90)
Cylinder anamorphosis. Oil on canvas, 24⅜ x 30¾" (62 x 78 cm)
Collection Rheims, Paris
Copy on panel

Johann König (1586–1642)?
91 *Portrait of a Man Standing Before a Balustrade*. c. 1630
Cylinder anamorphosis. Paint on copper, 15⅜ x 15⅜" (39 x 39 cm)
Universitätsmuseum, Uppsala
Copy on panel

92 *Portrait*, after Niceron (*Thaumaturgus Opticus*, Rome, 1646)
Pyramid anamorphosis made for this exhibition, following the instructions of Jean DuBreuil (*La Perspective pratique*..., Paris, 1649)

93 Reflecting pyramid showing *Four Male Portraits That Become One*, after Jean DuBreuil (Fig. 6)
Oil on panel, 8¾ x 8¾" (22.5 x 22.5 cm)

94 *Christ*, after Niceron (*Thaumaturgus Opticus*, Rome, 1646)
Cone anamorphosis made for this exhibition, following the instructions of Jean DuBreuil (*La Perspective pratique*..., Paris, 1649)

95 *Portrait of Louis XIII*, after Niceron
Cone anamorphosis made for this exhibition, following the instructions of Jean DuBreuil (*La Perspective pratique*..., Paris, 1649)

Leonardo da Vinci
96 Anamorphic sketches of a child's head and an eye. c. 1485 (Fig. 2)
Perspective anamorphosis. Drawing in Codex Atlanticus, fol. 35 verso *a*
Biblioteca Ambrosiana, Milan
Photograph

Erhard Schön (after 1490–1542)
97 *Portraits of Charles V, Ferdinand of Austria, Pope Paul III, and Francis I*. c. 1535 (Fig. 10)
Perspective anamorphosis. Woodcut, 17⅜ x 29½" (44 x 75 cm)
Photograph

Erhard Schön
98 *What Do You See?* ("Was siehst du?"). 1538 (Fig. 8)
Perspective anamorphosis. Woodcut, 8¼ x 33½" (21 x 85.5 cm)
Graphische Sammlung Albertina, Vienna
Photograph

Erhard Schön
99 *Out, You Old Fool* ("Aus, du alter Tor"). c. 1535 (Fig. 9)
Perspective anamorphosis. Woodcut, 6 x 29¾" (15.5 x 75.5 cm)
Graphische Sammlung Albertina, Vienna
Photograph

Jean Tröschel (1585–1628)
100 *Satyrs Astonished by an Anamorphic Drawing of an Elephant*, after Simon Vouet
Engraving
Photograph

Johann Heinrich Glaser (1585/95–1673)
101 *Christ with the Crown of Thorns, Flanked on the Right by the Fall from Grace and on the Left by the Expulsion from Paradise*. 1638 (Fig. 7)
Perspective anamorphosis. Engraving
Bibliothèque Nationale, Paris
Photograph

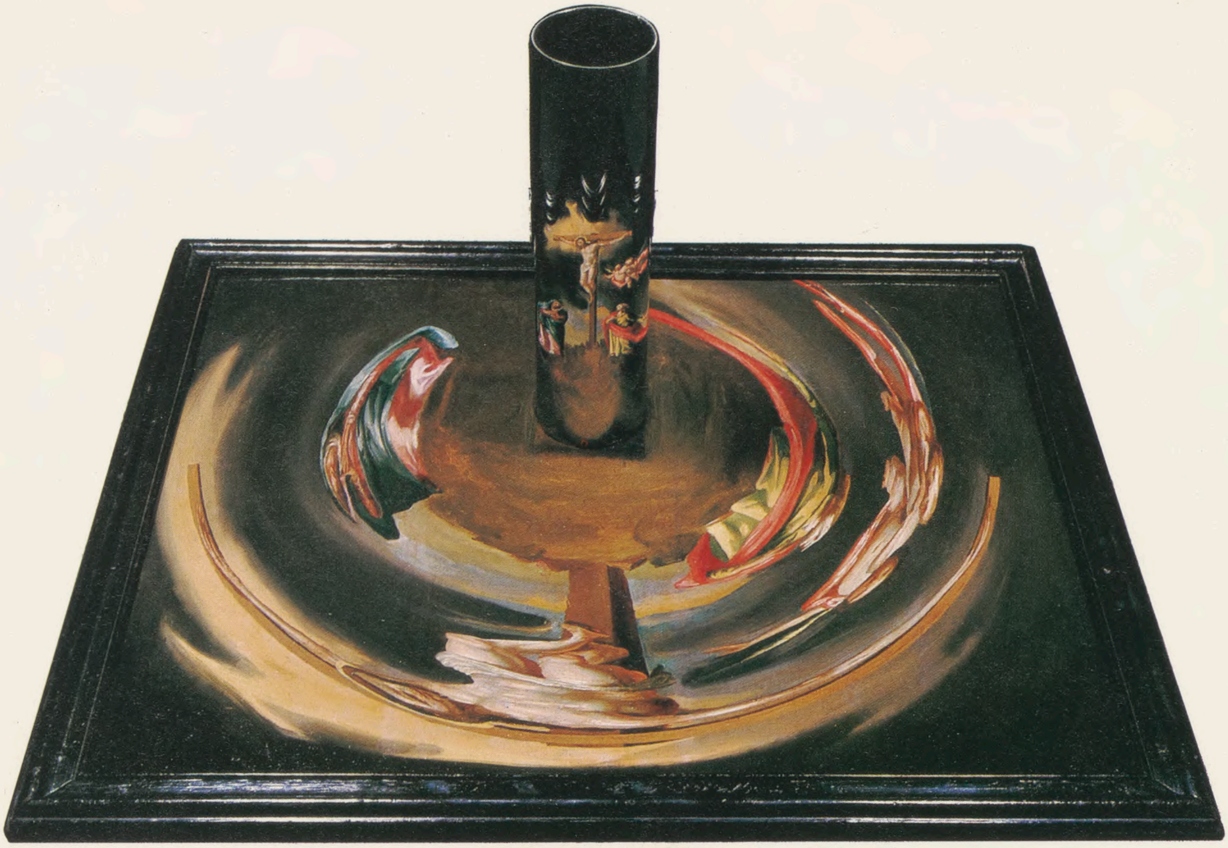
Anonymous French (late 17th–early 18th centuries)
102 *The Académie des Sciences et des Beaux-Arts*. c. 1700 (Plate 28)
Oil on canvas, 18⅞ x 37⅜" (48 x 95 cm)
Collection Monnier, Paris
Photograph

Anonymous (active second half of 19th century)
103 *A Violinist* (Plate 51)
104 *Seated Couple*
105 *A Cellist* (Plate 52)
106 *A Man Relieving Himself*
Perspective anamorphoses from a series of anamorphic representations published in 1868, edited by V. Décugis, Marseilles.
Lithographs, colored
Bibliothèque Nationale, Paris
Photographs

Anonymous Japanese (c. 1900)
107 *Benkei on the Bridge* (?) (Plate 85)
"Saya-e" (anamorphic picture). Book illustration
Photograph

Anonymous Japanese (c. 1900)
108 *"Indian" Wrestling*
"Saya-e" (anamorphic picture). Book illustration
Photograph

Anonymous Japanese (c. 1900)
109 *Classical Dance with a Fan*
"Saya-e" (anamorphic picture). Book illustration
Photograph



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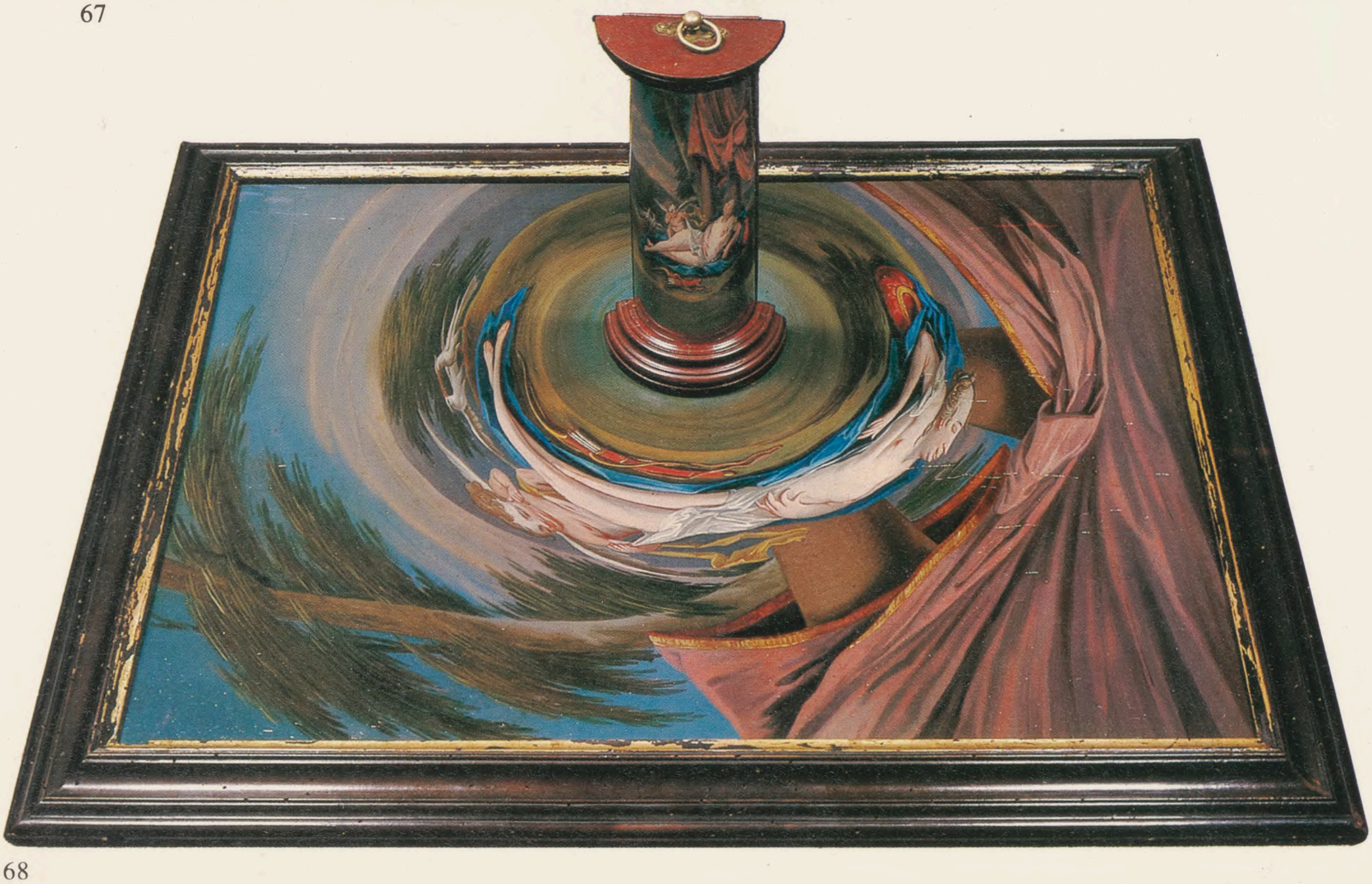

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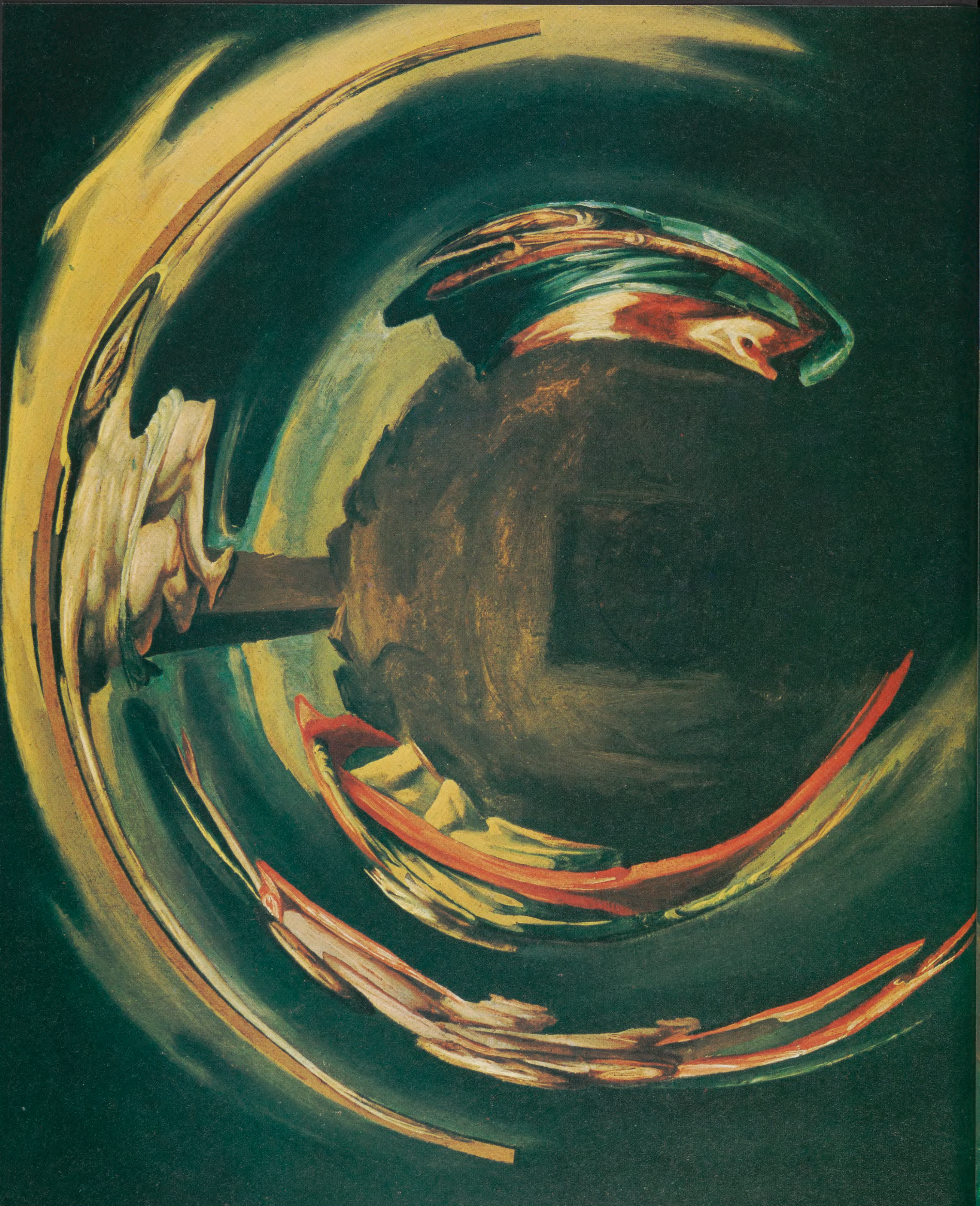

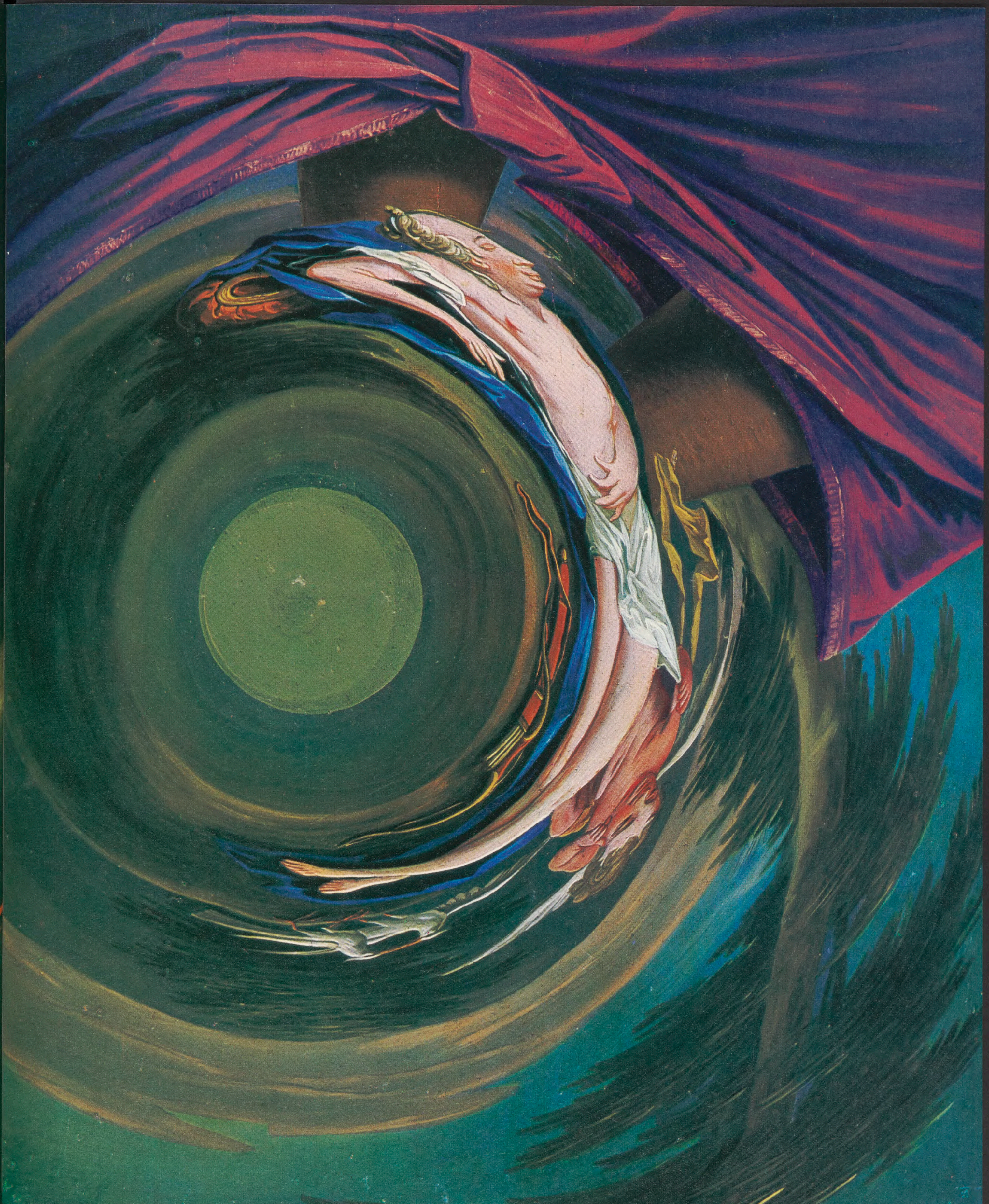

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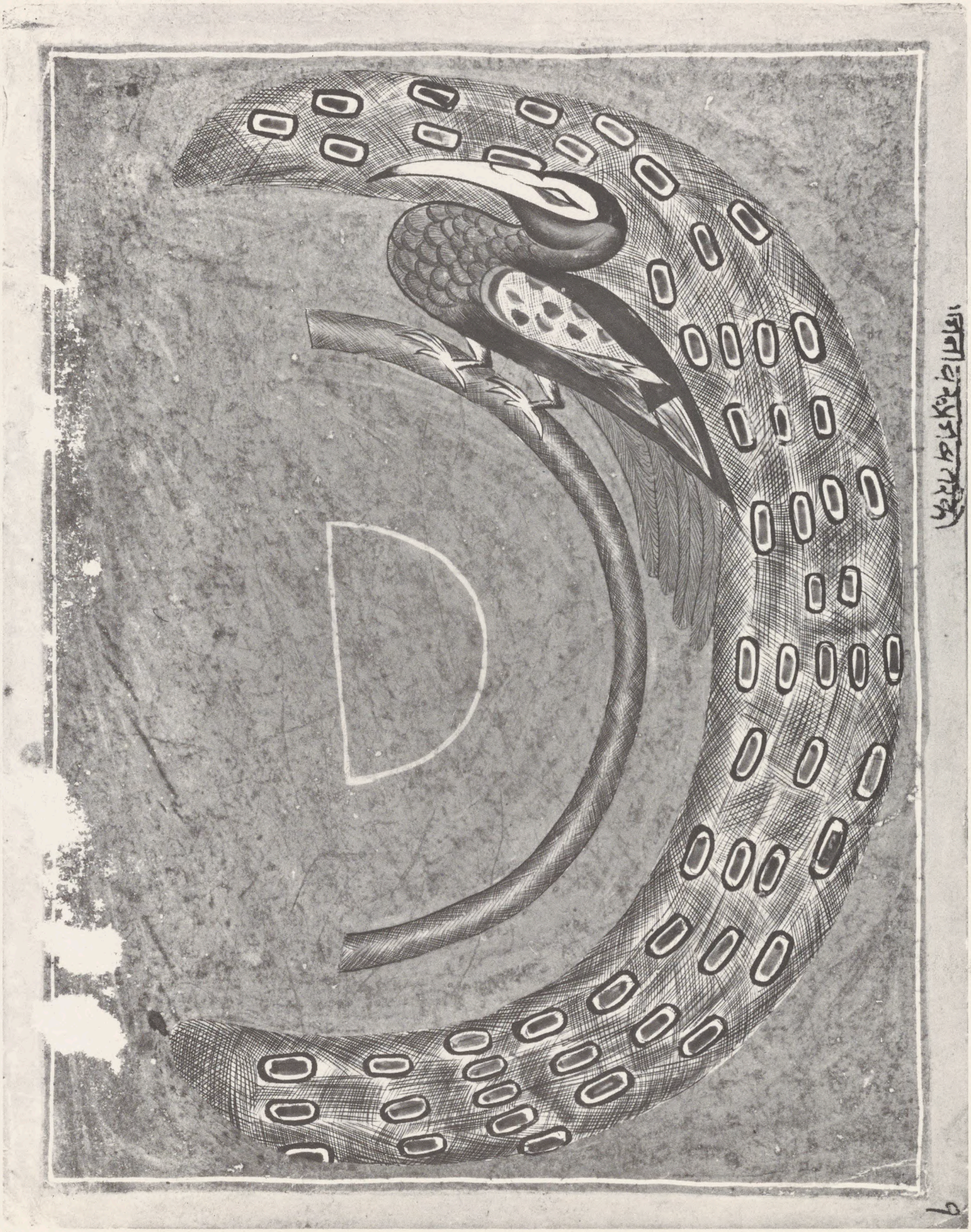

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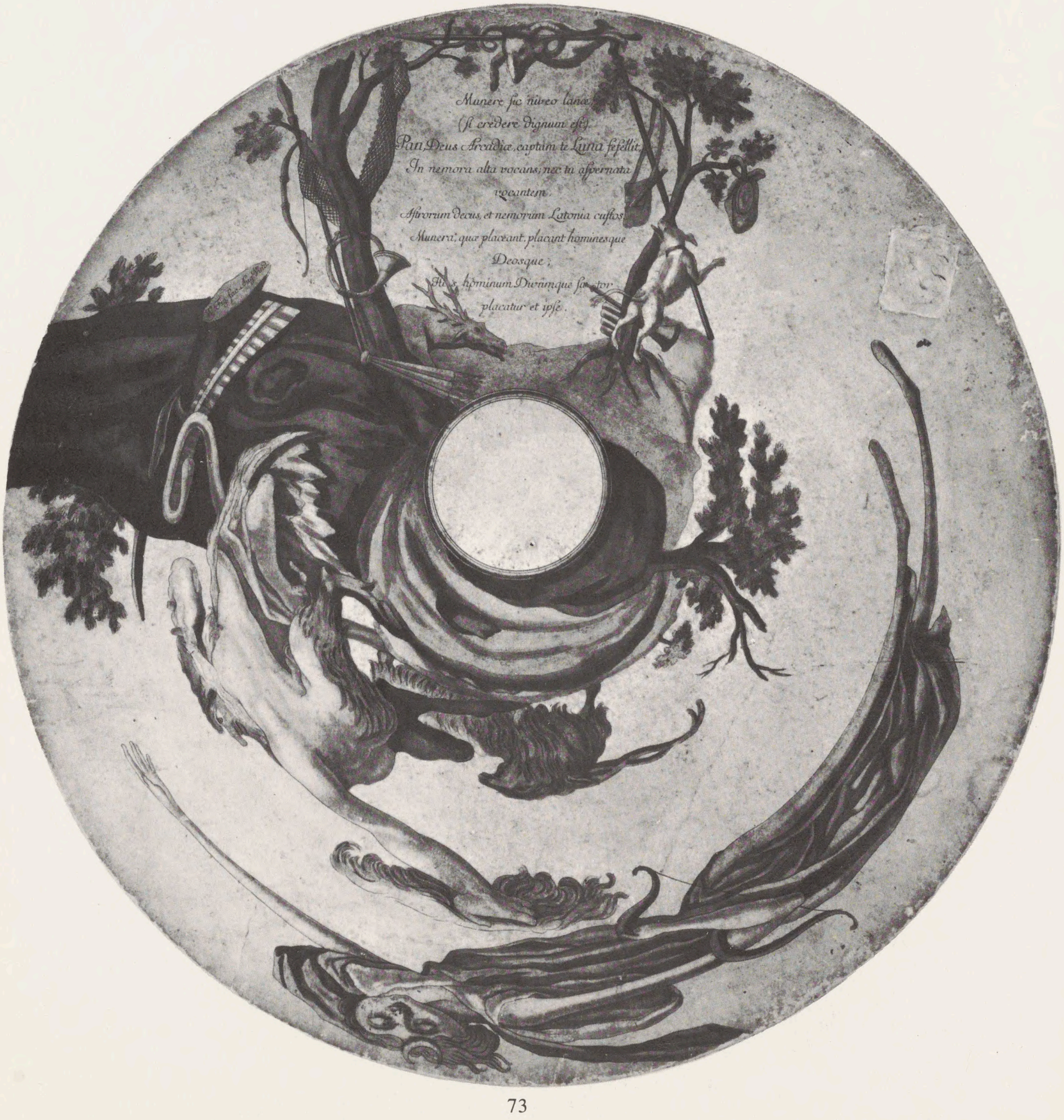
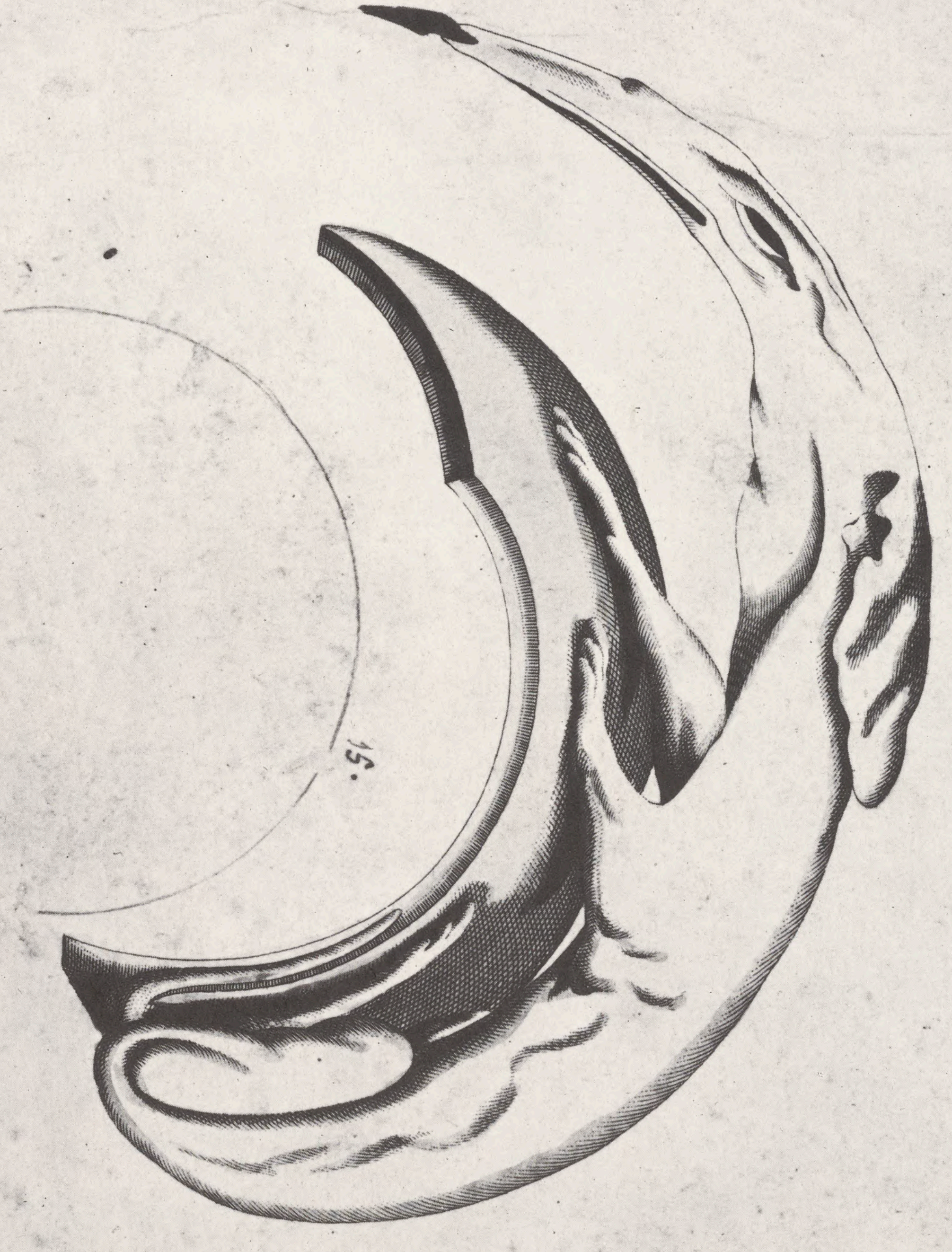


Munere ſic niveo lanæ
(ſi credere dignum eſt)
Pan, Deus Arcadiæ, captum te Luna feſellit,
In nemora alta vocans; nec tu aſpernata
vocantem.
Aſtrorum decus, et nemorum Latonia cuſtos,
Munera, quæ placeant, placant hominesque
Deosque;
His, hominum Divûmque ſator
placatur et ipſe.

73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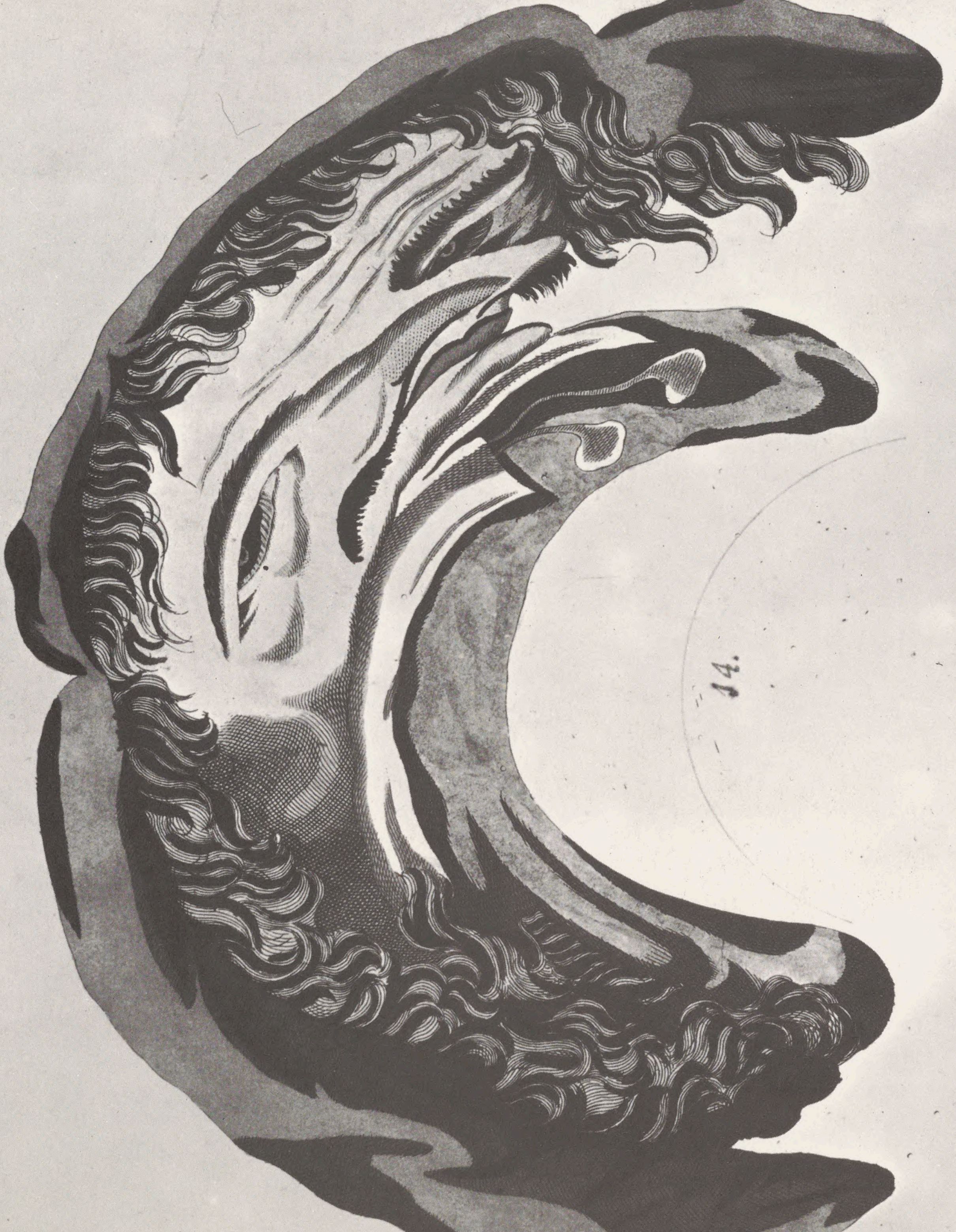
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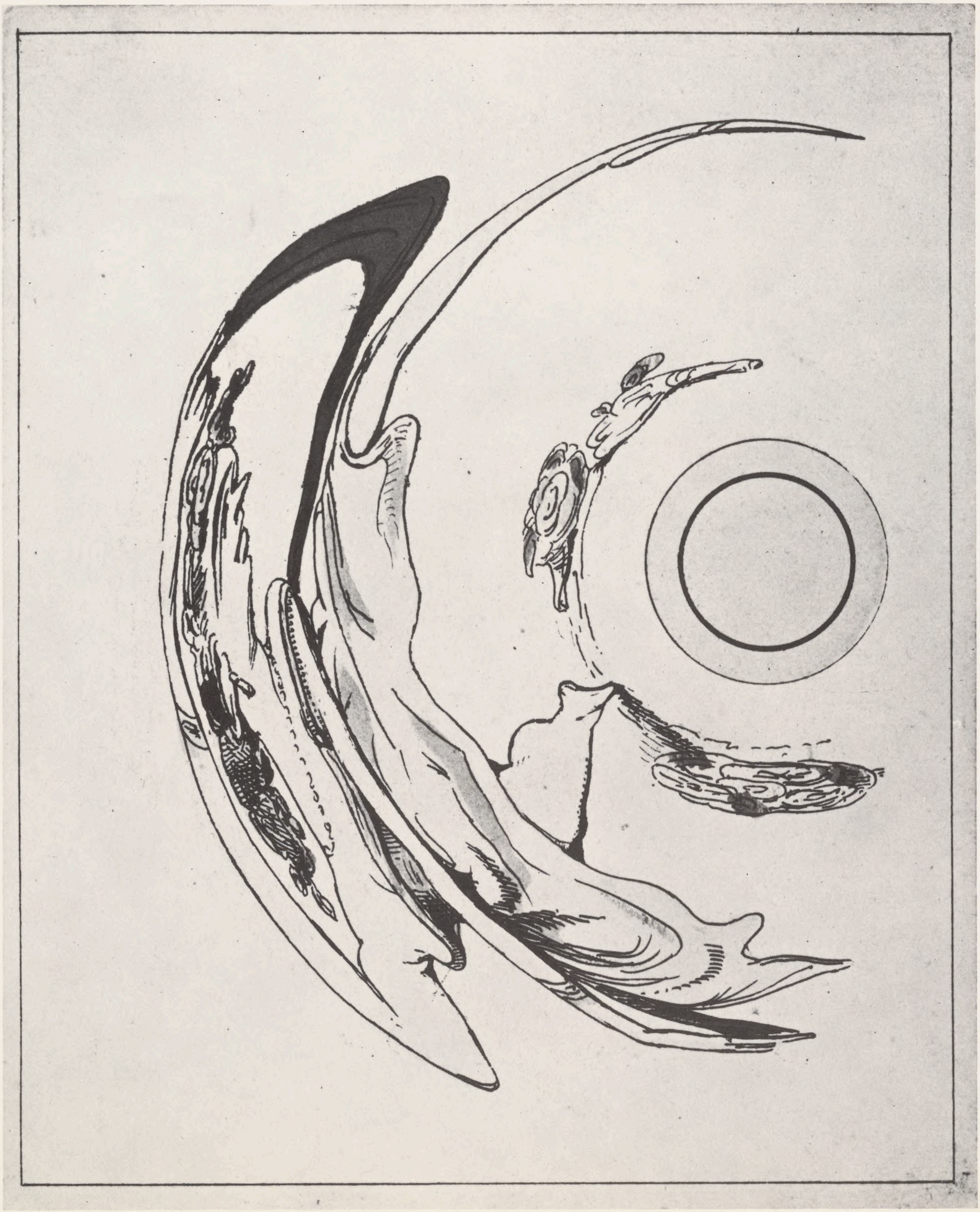

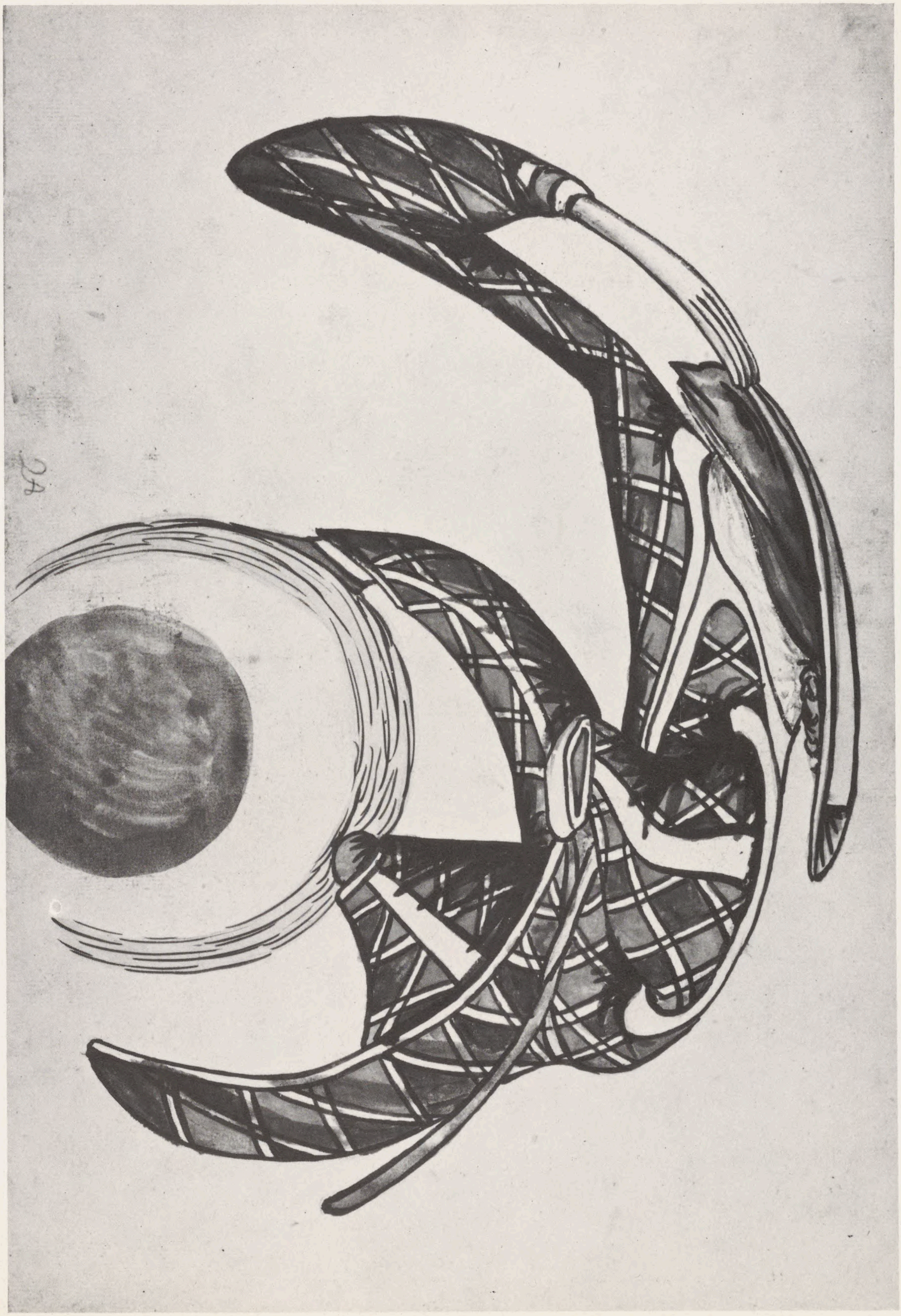
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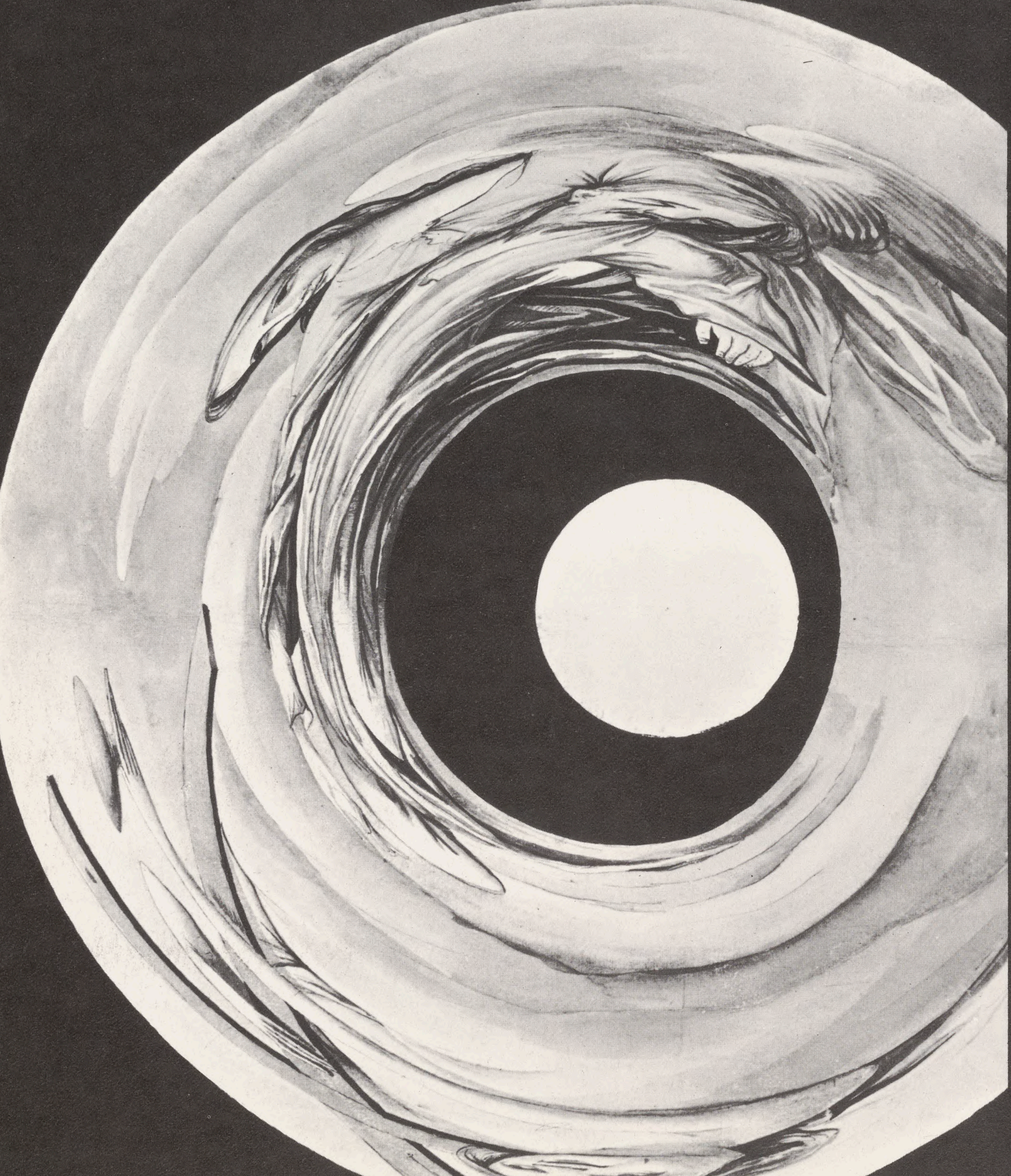

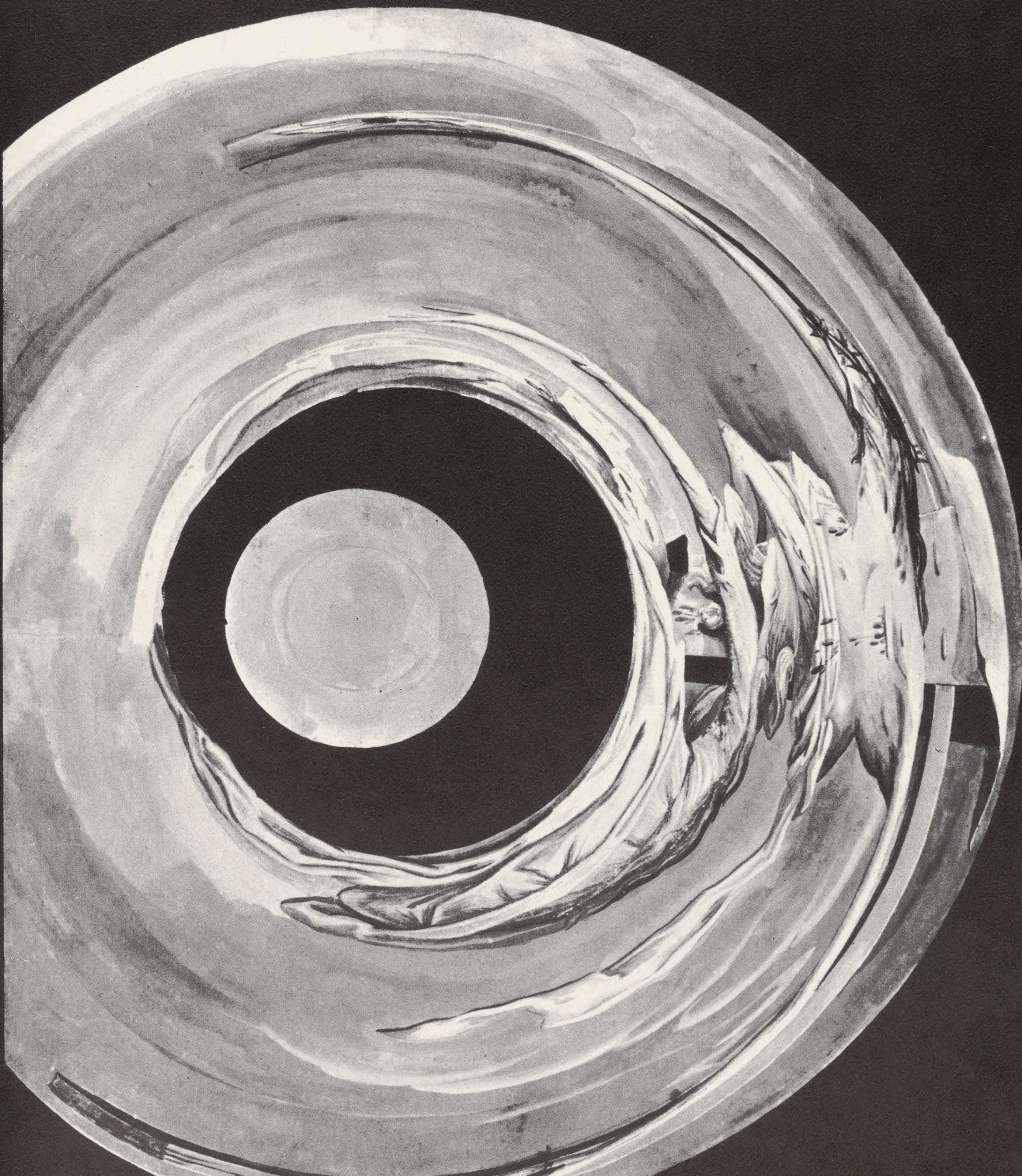

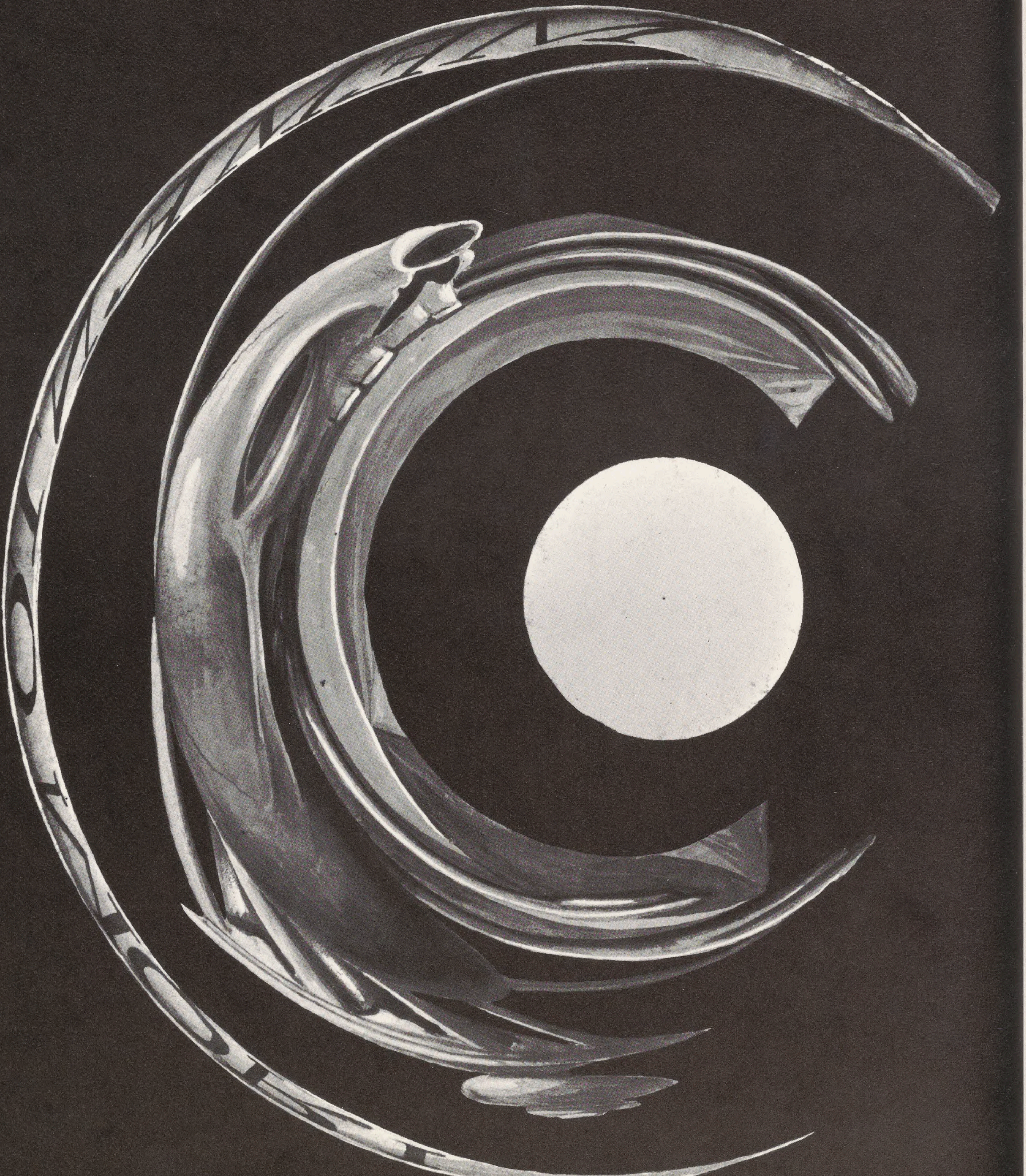

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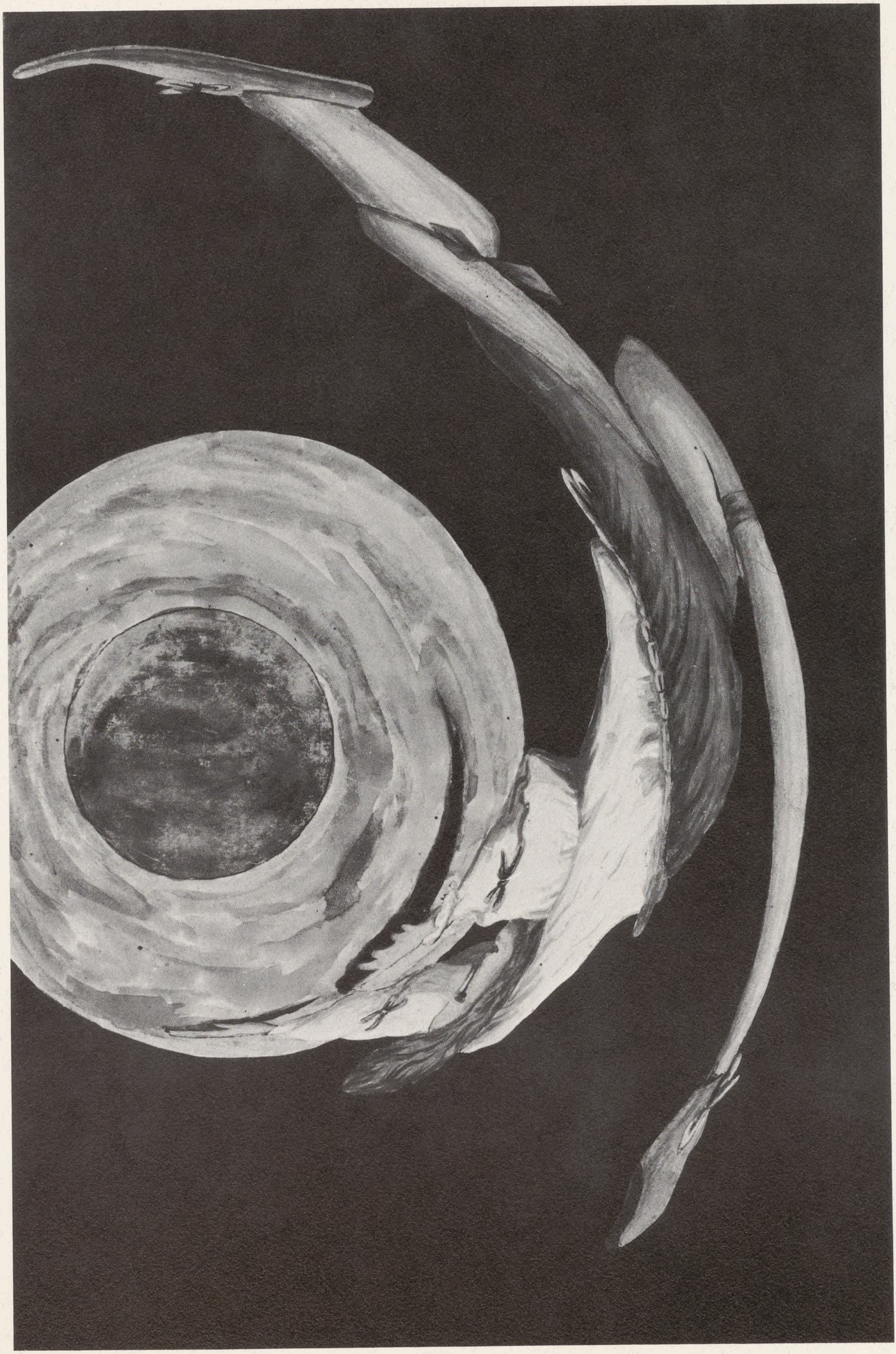

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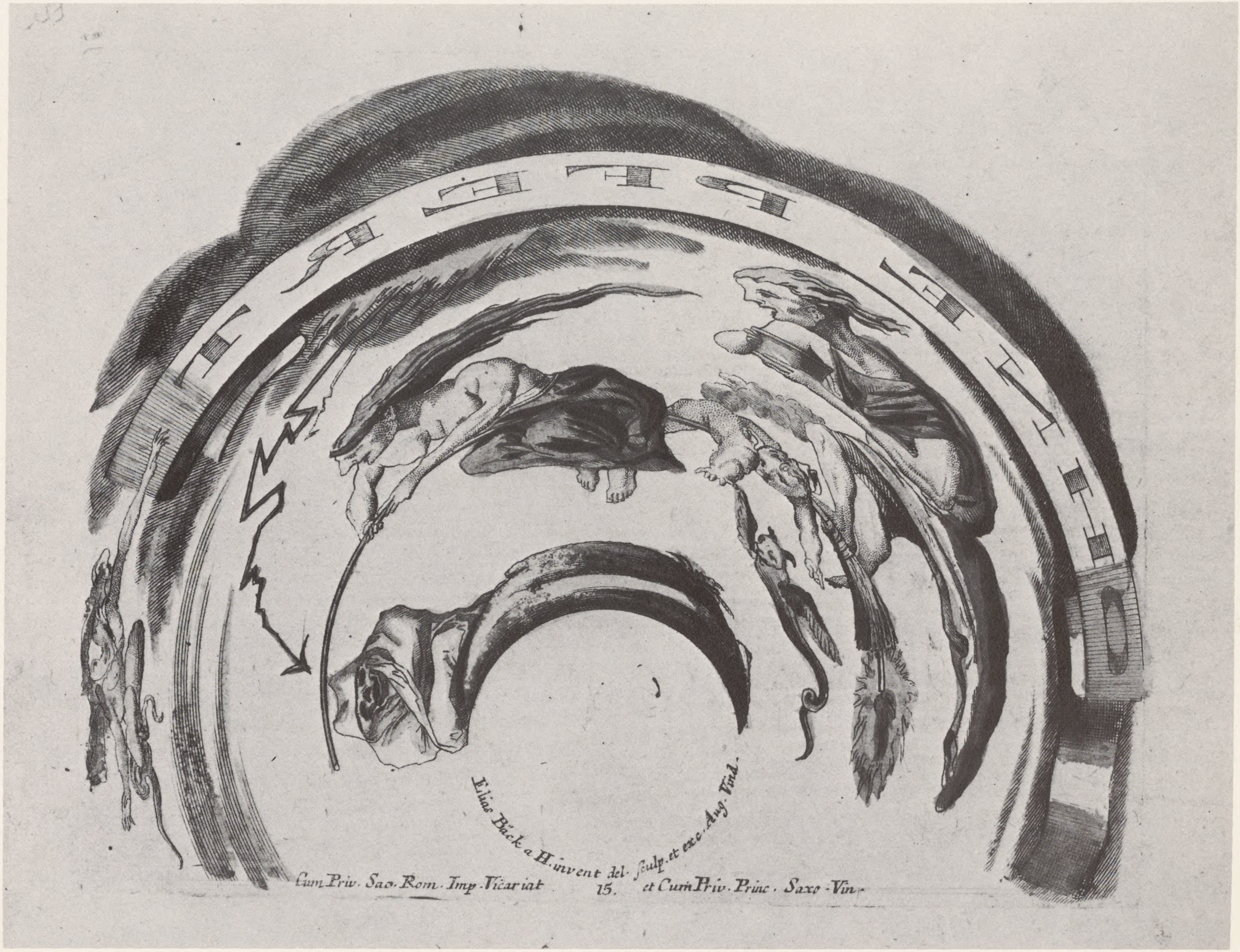
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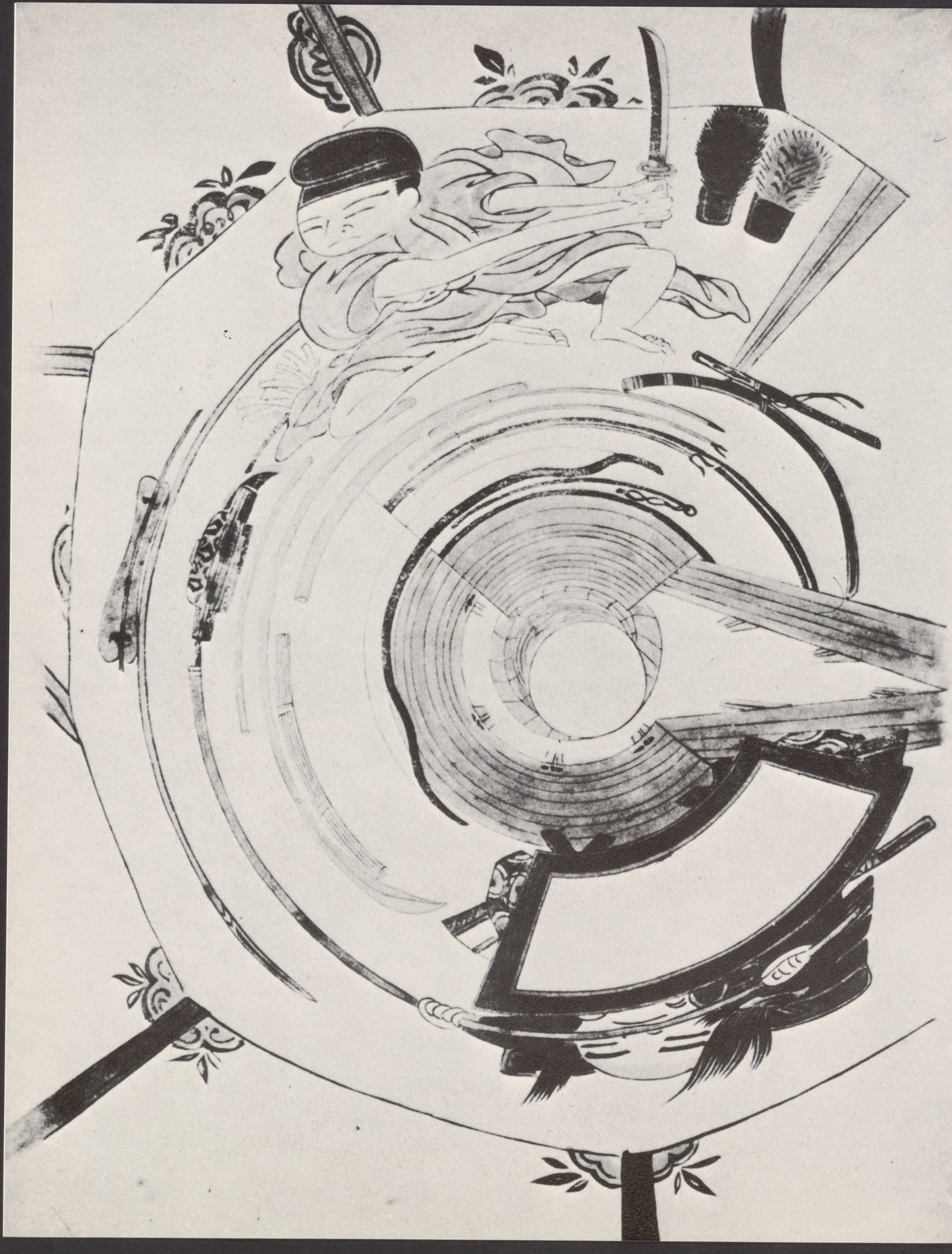

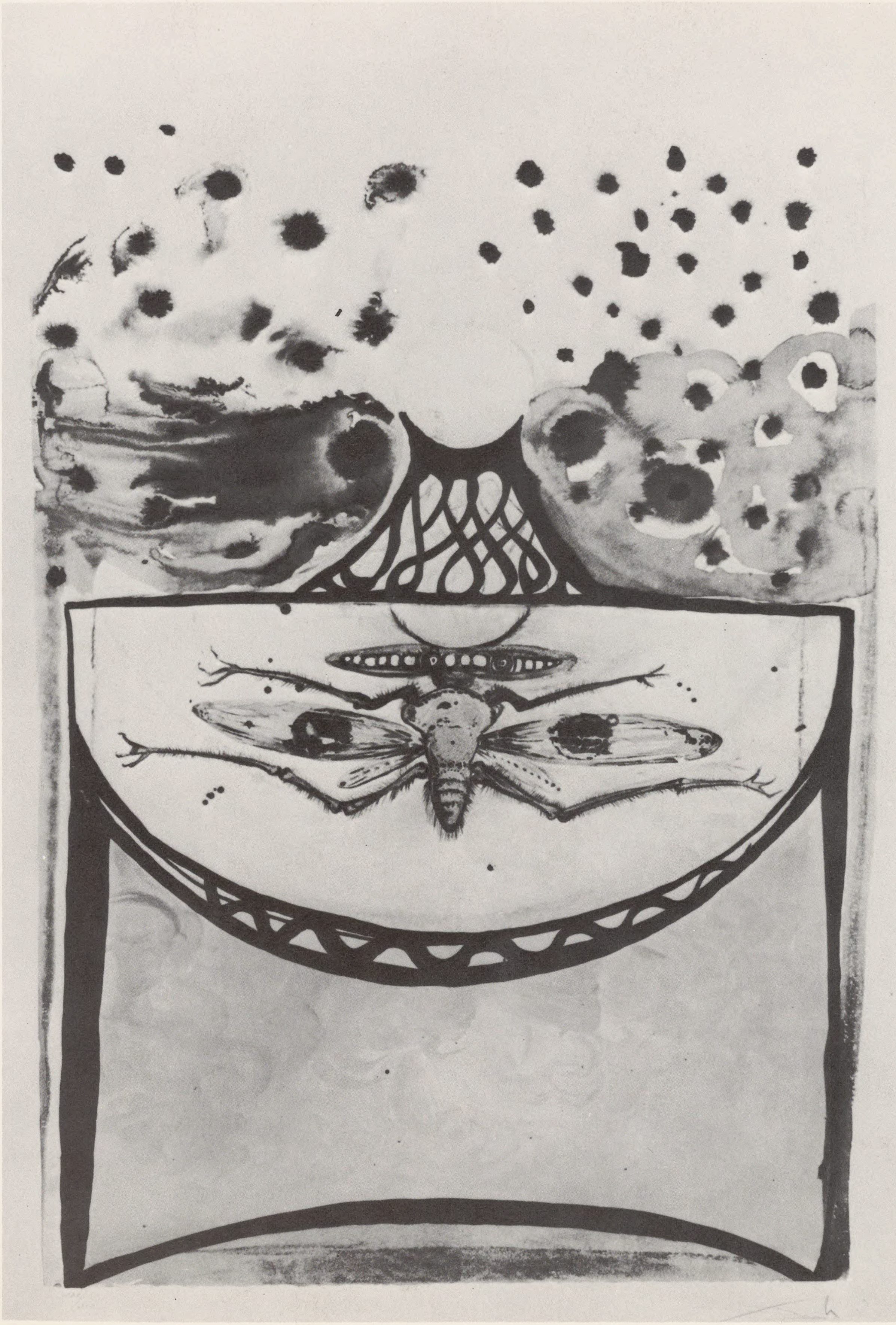

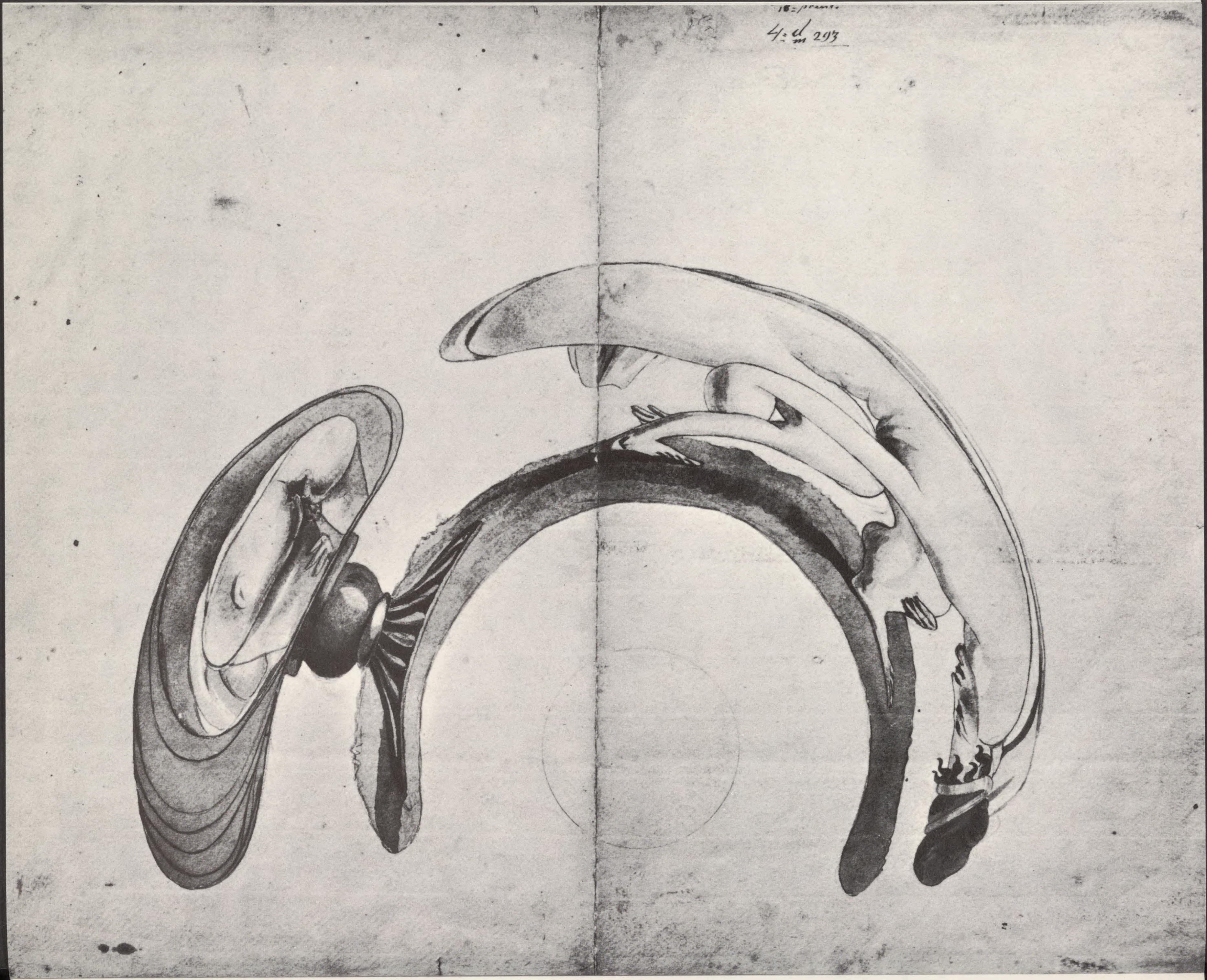
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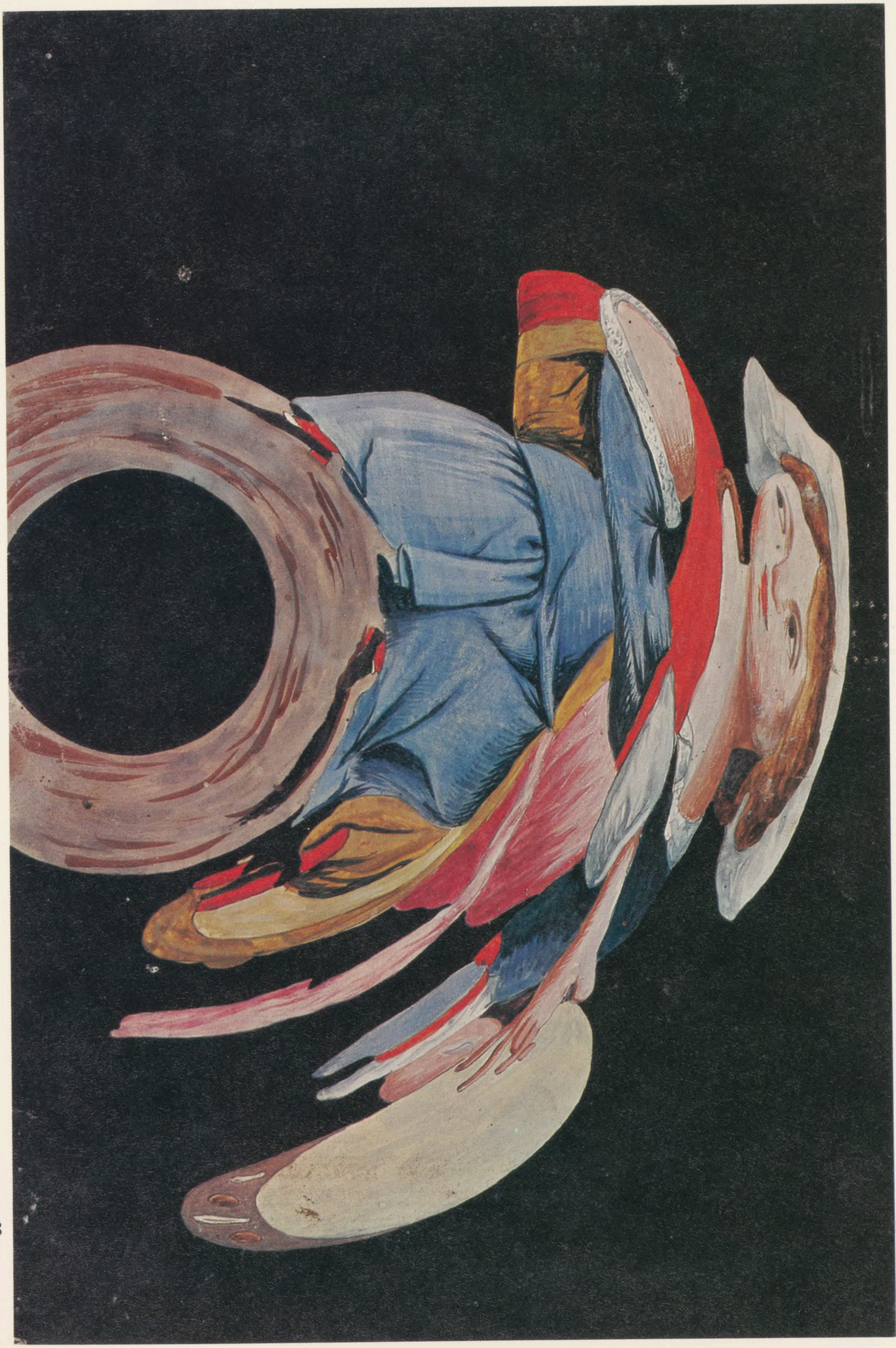

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